
INTRODUCTION

HSSE training, mentoring and coaching are paramount to any successful operation.

A safety culture grounded in knowledge and training of industry best practices needs to span the entire organization from the management team to the new worker. Injuring workers and damaging equipment slows production, costs money, ruins lives and affects families. The purpose of this proposal is to display that Canadian Safety Inspections Inc. “CSI” has a team of safety professionals that bring extensive HSSE knowledge and vast Resource Sector experience along with proven results in our industry.

CSI has provided safety training expertise services since 2006 to many of the large multinational resource based companies such as Teck Coal/Teck Resources, BHP Billiton Ltd, Royal Dutch Shell, Devon Energy, Schlumberger, ARC Resources and Leducor Group. Spanning activities in oil and gas, potash, coal and oil sand mining and major construction projects. At CSI, we have a strict hiring protocol that ensures we are able to secure the best HSSE professionals available. In order to work for us you must have worked extensively in the Resource Sector and have a deep understanding of all the day-to-day operations.

Our Team

We have a team of workers who have been engineers, drillers, construction supervisors, frac supervisors, off-shore specialty tool operators, rig managers, fire specialist, slashers, heavy equipment operators etc. This, coupled with our strict training matrix (see appendix A), enables us to send the right specialist – someone who has previously done a similar job with the most up-to-date safety and environmental training.

Site Visit Analysis

Initially, a site visit to the location will be required to understand work processes and to properly identify potentially hazardous activities. An informal inspection and assessment of the operation/site is necessary to understand the work procedures and to identify areas where practical exercises may be carried out as part of our training. Along with interviewing key personnel and identifying key issues, an incident history root causes (using the latest investigation techniques) will be utilized and trained at this time.

Mentoring

During our mentoring, we will shadow and observe your HSSE personnel and coach them as needed. We will enhance their knowledge on all aspects of Process Safety and Personal Safety. All of your personnel will develop an awareness of safer work practices which will improve the way they

perform their tasks. We will display that occupational health and safety values will not be compromised. No job is so important and no task so urgent that the necessary steps cannot be taken to perform it safely and maintain the health of employees, contractors, the public and the environment.

Competency

Job competency is key to successful and efficient operations. Our team will observe your team and as gaps appear, we will provide them with the training and tools that ensure they have the knowledge and skills needed to implement this philosophy and perform their jobs competently. Keys to good health and safety performance include: understanding the risks and hazards of the job; following the appropriate procedures; and, having the correct tools and using them properly. Not only will we empower your HSSE staff with this knowledge but we will also help them develop the confidence to intervene on a worker and effectively correct the “at risk” behavior.

Expected Improvements

As the knowledge, confidence and credibility of your HSSE team grow they will be able to influence your management team. Soon your management, supervisors and all employees will promote a work environment that holds employees and contractors accountable for fully implementing this HSSE philosophy. You will notice more efficient work practices and productivity will rise. A safe and highly productive workplace attracts the best and brightest individuals and will help make your company one of the world leaders in the industry.

Cost and Safety Culture Benefits

A safe workplace and corporate profitability are not mutually exclusive. In fact, without a strong safety culture, employers struggle to attract the best and the brightest workers. Corporations lose money when equipment is compromised as a result of unsafe work practices. Families and communities count on the Resource Sector companies to train workers and to keep them safe. Personal injuries cost more than money. They cost companies their reputation. By putting an emphasis on safety first, everyone in the organization will benefit.

CSI – CLIENT HISTORY

Shell Canada: 2003 - 2023

British Columbia, Alberta, Saskatchewan, Manitoba, Turkey, Columbia, Ukraine

In 2003 - 2006, the CEO of CSI was hired by a drilling company to assist in safety programs and mentoring.

Our relationship with Shell first began when they acquired an existing company in northern British Columbia in the Montney Shale Gas play. The acquired company had a very high TRIF (Total Recordable Incident Frequency) in their drilling operations and did not meet Shell's high standards. We immediately deployed 4 HSE Professionals to manage the on-site operations with huge success and within 1 year CSI was responsible for all HSE matters for the entire project including construction, drilling, completions and road transport. When we began the project the TRIF was 5.2 and under CSI HSE supervision the TRIF was reduced to 0.9.

As word of our success spread to other assets within Shell our services expanded to other areas and by mid-2010 we were overseeing all of Shell's upstream HSE matters in Canada, working in 4 provinces and having over 80 HSE professionals in the field, corporate and field offices. A group of our team were hand selected and sent to Houston Texas to be trained as Rig Inspectors & Lifting and Hoisting Trainers. As we continued to drive the TRIF down we finally hit our "Goal Zero" mark during the winter project in the Albian Mine Oil Sands project in 2014. This was the first time in Shell history that a project of this size had zero recordable incidents the project was completed ahead of schedule and under budget.

Shell has put many of our team in management position throughout their organization as well as sending us on special projects in such countries as Columbia, Ukraine and Turkey. In this position, we are required to do presentation at all DWOP (drill well on paper), CWOP (complete well on paper) these presentations are addressing all Shell staff, drilling/completions contractors, geology and service providers. CSI has become Shell's Field HSSE management team and answer directly to the corporate office. As the sole HSSE provider we:

- present at the annual corporate meeting.
- provide site orientations
- review and develop JSA (Job Safety Analysis) and SWP (Safe Work Procedures)
- behavior observations
- permitting and SIMOPS (simultaneous operations) coordination
- lifting and hoisting supervisors
- supervise road transport operations
- inspect breathing air equipment
- ice road/bridge inspections
- conduct testing on all produced and flow back fluid for NORMs (naturally occurring radioactive material)
- site inspections
- coaching and mentoring of all workers and managers
- statistical analysis / tracking and trending
- incident and accident investigation
- consult on new corporate policy
- mine driving instructor

- silica testing

Brion Energy: 2013-2016

Northern Alberta

This winter drilling and plant expansion project was experiencing problems with a high incident rate when we were approached. Do to the complexity of this project there were a large number of contractors working unsupervised in an extremely large area. We immediately held a meeting with every contractor's management team to ensure moving forward that all HSE protocols were being followed. This paired with random site visits, coaching/mentoring opportunities, audits and weekly HSE/progress meetings etc. the project quickly came under control. Brion's management seeing the positive results (rapid decrease in incidents) and the development of a "safety culture" throughout the project expanded our HSE presence to other projects.

- scaffolding inspections
- ice road/bridge inspections
- behavioral observation and mentoring/coaching
- contractor management project/safety meeting and presentation
- manage permits, MOC (management of change) and inspections

Devon Energy: 2009-2013

Northern Alberta

Senior management at Devon approached us to put together a HSE management team to oversee all aspects of a new project. Responsibilities were to audit and enhance all contractors HSE management systems. Under our supervision were drilling and completion contractors, water and vac services, trucking and heavy equipment operations etc. It was our responsibility to audit their policy and procedures, identify gaps and then develop an Action plan with the contractor's management. Behavioral based safety was a major part of this project and was discussed in weekly safety topics held with all contractors.

- develop weekly power point presentations on safety themes
- collect, track and analyze all safety statistics
- coach and mentor as needed
- regular inspections such as: emergency equipment, lifting and hoisting equipment, fall protection equipment, rig inspections, training requirements etc.

ARC Resources: 2014-2016

Northern British Columbia and Alberta

After a series of serious accidents and lost time injuries the management of ARC Resources was referred to us by their counterparts in the industry. CSI's HSE team joined the ARC's HSE team and after a series of audits and observations many major gaps were identified. CSI along with ARC's HSE team built an extensive Action Plan which was then rolled out systematically project wide. The plan soon was paying dividends and the TRIF started a downward trend. As the safety culture grew it was noticed the holes were being drilled faster as the crews became more efficient. Within 1 year CSI had HSE professionals throughout ARC's entire operations from

construction, drilling, completions, well servicing, facilities and pipeline and the TRIF was pushed down to below 1. Our responsibilities also include doing a presentation at all “kick off meetings” and an annual presentation to the company’s board of directors.

- review, update and build SWP
- develop a strong LOTO (lock out tag out) policy
- supply and operate breathing air equipment for IDLH (immediately dangerous to life or health) environments
- conduct fit testing for air breathing equipment
- test all frac fluid for NORMs (naturally occurring radioactive material)
- oversee all lifting and hoisting
- load securement training and inspections

Bellatrix Exploration: 2013-2016

Northern Alberta

This project was a winter drilling operation during the months of December-March in areas not assessable in the summer months due to ground conditions involved travel over ice roads, ice bridges over frozen bodies of water held a unique set of challenges. Not only did we need to oversee the daily HSE matters on a group of small coring rigs but had to oversee the inspections of ice road/bridge conditions, JMP (journey management plans) etc. In these areas of operations such this as radio control/communication of roads is essential and this compliance by all contractors was one of our responsibilities. Emergency response is also critical in this vast remote terrain, therefore emergency drills, accurate maps and locations were also under our mandate.

- attend and chair safety meetings
- mentor and coach as many workers in project are seasonal and lack experience
- facilitate weekly management meetings
- incident investigation

Rio Tinto: 2011-2013

Potash Mines-Southern Saskatchewan

Hearing of our success in the oil and gas industry this large multinational company approached us to manage their HSE interest during all drilling operations on this mining project. Drilling operations included exploration & disposal holes and vent shafts. This work was done both in exploration and expansion areas as well as active mine areas. In this area we were responsible for coordinating the HSE portion of the SIMOPS (simultaneous operations) communications.

- coordinate and communicate all SIMOPS concerns
- ERP (emergency response plan) development and integration with existing mine ERP
- coordinate emergency simulations and rescue exercises
- attend and chair safety meetings

BHP Billiton: 2012-2014

Potash Mines-Southern Saskatchewan

Our success at the Rio Tinto sites was noticed by neighboring BHP sites and it was then that this Australian based multinational resource company hired us to also manage their HSE for drilling operations. Our responsibilities in this mine were very similar to the other mines we were working in.

- develop a new safety theme each month to be incorporated into safety meetings
- share and discuss any relevant industry incidents and share how we are preventing them on our sites
- review and revise existing SWP (safe work procedures) and JSA (job safety analysis)
- ensure permits are being issued and followed

Northwest Sequoia: 2011

Tech Coal Mine-Southern British Columbia

Northwest Sequoia who was doing exploration drilling in the Tech Coal mine for over 10 years were on the verge of losing the contract do to a spike in serious incidents which they could not resolve. They had heard of the success we were having with other companies and approached us for help. We mobilized to the mine and did a full audit of all the rigs (equipment, procedures, personnel, practices etc.) This audit along with extensive observation of both day and night operations identified many serious gaps which were addressed with Sr. Management and the Action Plan was developed.

All gaps were then shared with the field personnel and the corrective actions were discussed and implemented and within 1 month of the corrections being implemented the project was incident free. Northwest Sequoia kept the contract.

- “Tap Root” accident investigation on past incidents to get to the heart of the problem
- Gap analysis and report to both
- policy and procedure review and correction
- behavioral and safety attitude observations and correction
- management behavior and correction

TAQA North: 2011-2012

Northwest Alberta

A former Shell Drilling Superintendent that we worked with on Shell projects requested our assistance on his new winter drilling project with TAQA. This project would involve months of pre planning with the TAQA management team (CSI HSE, On-Site Representatives, Superintendent and geology). We would be using a drilling contractor with a very high TRIF and many new to the industry workers including a weak management team. Prior to the beginning of the project we did a full rig inspection to make sure that all equipment was fit for service before entering the field so all we would have to deal with was personnel issues. Other issues we knew we would have to deal with were extreme cold with temperature reaching -50 Celsius and traveling on ice roads. The project was completed with a few minor incidents early on in the project and ended strong.

- training all personnel about working in extreme cold environments. How to dress, what to drink and all the signs of frostbite

- close supervision and mentoring of new workers to ensure they were aware of the hazards of the job and the proper procedures on how to do the job safely
- hazard recognition training and development of a hazard hunt program
- development of themed safety meetings, i.e.: hand and finger safety

Schlumberger/SaskEnergy: 2012-2014

Boundary Dam Project-Southern Saskatchewan

A Sr. Manager from Schlumberger who had been involved in another project with us recruited us to manage the HSE for the Schlumberger drilling contract with SaskEnergy for the world's first carbon capture power plant which burns coal. CSI managed all drilling operations for disposal/injection and monitoring wells. We worked Schlumberger as part of the management team to ensure that the strict protocols were followed on this sensitive and groundbreaking project.

- ensure that JSA requirements were being followed consistently
- coach and mentor all personnel on proper procedure
- train onsite personnel on hazard recognition
- oversee all lifting operations
- produce a weekly report to the Corporate office
- collect and analyze all HSE data

Imperial Oil: 2011-2015

Cold Lake military base & weapons range-Eastern Alberta

This unique area of operations adds some interesting challenges in that we are drilling, completing and servicing wells on an active military weapons range. HSE is even more complex in this area as we not only have our industry standards to follow but also Canadian military policies to follow. We organized and supervised the cleaning, inspections and repairing of 400bbl tanks. CSI was in charge of developing the ERP, testing the atmosphere for H₂S, Oxygen deficiencies and LELs as well as providing air trailers and personnel to monitor air and have spotters in place watching the work being done in the confined space encase an emergency rescue was required.

- develop/execute man down rescue drills
- develop emergency response and rescue plans
- supply and maintain breathing air equipment (SABA, SCBA, air trailers, tripods etc.)
- review and develop proper procedures for new tasks
- risk assessment training

Core Commander: 2015-2016

Alberta and British Columbia

CSI was recommended to this startup specialty coring company. We were hired on a contract basis to audit and inspect all equipment and ensure that they met the highest standards so to ensure the ability to secure contracts with all the big Oil and Gas companies. During our term with Core Commander we developed their entire HSE management system, build and evaluate

JSAs (Job Safety Analysis), SWPs (Safe Work Procedures), LOTO (Lock Out/Tag Out) procedures etc. Upon completing our contract the company had already secure contracts and had rigs working and were prepared for their first COR audit.

- develop permitting system and documentation, JSA template was developed and implemented etc.
- training matrix was developed to ensure all relevant was current and up to date
- training was provided for key personnel on lifting and hoisting techniques
- maintenance schedule was developed along with proper LOTO procedures
- ensure all corporate documents were current

Advanced Construction Techniques (A.C.T.): 2012-2013

Shell-Albian Oil Sand Mine- Northern Alberta Canada

A.C.T. was awarded a contract by Shell Canada to do a multifaceted geotechnical project on the condition that they acquire CSI as their HSE Managers. This project involved was preceded by extensive planning by all parties (geology, engineers, operations and HSE for Shell Drilling, Albian Mine, Environment Canada and A.C.T.) Do to the unique operation of having to drill under a lake that was formed by mistakenly contacting a fracture which allowed Sour Water to flow and cause a large lake that was being contained by a series of berms. The project involved drilling horizontally under the lake, identify the fractures and using an IntelliGrout system seal the fractures and then dispose of the sour water.

CSI was responsible for developing a HSE management system that was in line with Shell's expectations. During the planning HSE was discussed at every level to ensure both personnel using customized equipment were safe, the atmosphere was constantly being monitored for H2S concentrations and that the environment was being protected using the best techniques and equipment.

- developing a training matrix and ensuring all personnel have the proper training
- develop SWP for all new customized equipment.
- facilitate mine drive training
- develop JSA's
- develop and train on proper LOTO procedures
- inspect and monitor all air breathing equipment (SCBAs, SABAs, Meshguard wireless H2S and LEL monitors etc.
- develop and facilitate hazard id program
- facilitate safety meetings

Other companies that involved similar responsibilities:

Eagle Drilling: 2011-2012, Talisman Energy: 2011-2014, Norwest Energy 2010-2014

Special Operations:

Lifting and Hoisting Instructors:

Shell Canada 2011-2013

- the only certified instructors in Canada to facilitate Shell's 3 day General Lifting Appliance and Rigging Training
- specialty training was provided with craning experts based out of Houston Texas.
- this training was a combination of both practical and theory and was mandatory for all field personnel in Upstream Operations

Rig Inspections:

Shell Canada, ARC, Devon, TAQA, Talisman, Core Commander 2010-2016

- our specialty team was put together by Shell and sent to Houston Texas for training. Now our Rig Inspection Team does pre contract inspections of equipment for a variety of Oil Companies in Canada and internationally to ensure that when equipment enters the field it is safe and ready to work.

Auditing Division: COR

ARC, Ryker Oilfield, Shield Wireline, Alberta Heavy Oil, By System Electric 2011-2016

- our highly trained experts do COR audits for large multinational oil and gas companies ranging all the way to small local service providers
- our audits provide a process to assess the health of the existing HSE management system and identify workplace hazards and then systematically control risks to protect workers
- these audits assess such things as equipment quality and certifications, preventive maintenance plan, incident investigation, training matrix, emergency preparedness etc.

During our time in the field with your HSE Managers, mentoring and training will cover many of the below subject areas as need arises.

Training Courses Available

- ◆ Note: this is an example of the training basics or fundamentals required by personnel operating in the field. Specific and specialized training for each sector e.g. Tools, Instrumentation systems is NOT included.
- ◆ “No expiry” – most companies require some form of *refresher training* for topics that have no expiry.

- ◆ In general, this is usually a one to five year time frame depending on how critical the training are to the worker's job duties or if changes occur to procedure, equipment or conditions.

GENERAL (All industries)

New Employee Training: No expiry

- Industry, company policies, requirements and personal responsibilities for ALL workers.
- Includes hazard identification, reporting incidents, injuries and emergency evacuation

Canadian OHS Laws & Regulations: No expiry

- Learn the key provincial and federal workplace laws all employees need to know before starting work
- OH&S Law, criminal law, worker rights, “due diligence” (Liability Issues)
- IRS – Internal Responsibility System used as the foundation for OHS responsibilities.

Introduction to HSE-MS: No expiry

- Learn why we need a “management system” to manage HSE effectively and typical elements
- How companies commit to protect employees, contractors, and the community
- Using risk management, global work standards, contractor management and other controls

WHMIS (Workplace Hazardous Information System) and GHS: Valid for 3 years

- Learn the national hazard classification and hazard communication system of how to safely, handle, label, store, clean up and dispose of hazardous materials in the workplace
- Includes the basics of material transfer, spill response, hazardous waste and fire-fighting
- Updated in 2015 to include Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Aligns with the United Nations' GHS into EU law known as the CLP Regulation
- Includes MSDS / SDS Material Safety Data Sheets on physical and health risks

TDG (Transportation of Dangerous Goods): Valid for 3 years

- Designed for all workers involved in the transportation and handling of hazardous goods
- Introduces Transportation of Dangerous Goods (TDG) Act and regulations.
- Details the requirements for receiving, handling, transporting and shipping dangerous goods, as well as the appropriate response in emergency situations
- Topics include, classification of dangerous goods, UN numbers and placards and Emergency Response Assistance Plans (ERAP)

Introduction to PPE (Personal Protective Equipment): No expiry

- Learn how to select the protective equipment required for your job and the maintenance required
- Be able to use it as designed and know it's limitations

Fire Extinguisher Use: No expiry

- Learn the different classes of fire, types of fire-fighting extinguishers and other equipment
- Be able to select the proper extinguishers and use the ‘PASS’ technique

Incident Reporting Procedures: No expiry

- Learn the legal and company requirements for reporting hazards, incidents, injuries and spills
- Understand the incident definitions used such as “near miss/hit”, first aid, medical aid etc.
- Be able to use the appropriate terms and fill in the forms provided

- How the Canadian Workers Compensation Board (WCB) System accommodates injured workers.

Manual Handling: No expiry

- Advise that the employer must provide training in manual handling lifting assessments
- This considers the worker’s physical and mental capabilities to perform the work and tools needed
- Focused on elimination or reduction of factors that could lead to a musculoskeletal injury

Emergency Response Training: No expiry

- Learn the requirements for training staff on emergency types such as fire, flood, spill response
- Be able to react appropriately in an emergency alarms using evacuation and rescue techniques

Safe Work and Special Procedures: No expiry

- Learn the different between safe work practices, procedures and critical tasks
- Discuss and list the types of high risk work applicable that require procedures or permits e.g. electrical, working at heights, ladders, scaffold, LO-TO, confined spaces etc.
- Examine different forms and types of procedures commonly used

GENERAL (Exclusive to Oilfield Industries)

Petroleum Safety Training (PST 2.0): No expiry

- The premiere introductory course for oilfield workers
- Offers a general introduction and overview of health and safety hazards and how to control them
- Discusses the legal framework that employers must follow
- Lists the HSE responsibilities of workers and employers
- **Similar training below**
- Construction Safety Training System (CSTS) from the Alberta Construction Safety Association
- Pipeline Construction Safety Training Course (PCST) from the Construction Sector Council

Hazard Management: No Expiry

- Learn how to develop a hazard management system
- Includes hazard identification, risk assessments, and the hierarchy of controls
- Understanding of legal expectations and regulatory requirements

H2S Alive: Valid for 3 years (a requirement for all workers on all critical sour wells)

- Learn how to work safely in and around (H₂S) environments
- Properties, health hazards, how to use Breathing Air Equipment (SCBA, SABA etc.)
- “Man Down” and evacuation procedure, the seven step process.

Standard First Aid - Level A: Valid for 3 years (Field managers must have first aid)

- One first aider is required for every drill crew and field managers must have first aid
- A comprehensive 2 day course that the majority of field workers have
- Recognize and provide intervention for life-threatening emergencies until medical aid arrives

Fall Protection – General: Valid for 3 years

- Gain an understanding of general fall effects, fall protection training fall protection legislation and best practices across a broad industry spectrum
- Includes inspecting, fitting, adjusting and connecting fall protection systems and components
- Offered by a variety of industry providers, often specific to industry

Other Fall Protection Training: Expiry varies

- There are a number of equipment specific training programs
- Examples - Telescopic Lift Truck, Lift Truck, Elevated Work Platform, Aerial Lift, Scissor Lift
- Offered by a variety of industry providers

Respirator Use (Fit Testing): Expiry 3 years

- Learn the different types of respirator used for different hazardous environments
- Select the correct size, confirm that it seals on your face and how to take care of the respirator
- Includes facial hair awareness

Facial Hair Awareness: No expiry

- Understand the personal requirements of being clean-shaven in hazardous airborne environments
- Short refresher training often highlighted as conditions dictate – when respirators are required

Incident Investigation – General: Expiry varies

- Designed for frontline supervisors and those who are required to carry out or assist in incident and accident investigations of small to mid-sized companies who are interested in learning
- Learn how to perform and document an incident investigation, identification of the root causes of accidents and make quality recommendations for corrective actions in order to prevent recurrences

UPSTREAM SPECIFIC

First Line Supervisor's Blowout Prevention: Expiry 3 years

- Designed primarily for First Line Supervisors (Drillers) who work on a drilling rig
- Learn the theories of blowout prevention
- How to use warning signs to recognize a kick and safely shut-in a well.
- This is a 4 day course and prerequisite for the Second Line Supervisor's Well Control course

Second Line Supervisor's Well Control course: Expiry 3 years

- Designed primarily for rig managers, wellsite supervisors, drilling engineers or drilling superintendents who are responsible for the execution and supervision of well control operations in the field.
- Provides hands-on experience performing well control procedures using live test well equipment at Enform's training facility in Nisku.
- This is a 5 day course and prerequisite for the Second Line Supervisor's Well Control course

Fall Protection for Rig Work: No Expiry

- Gain an understanding of general fall effects, fall protection training and equipment used on rigs
- Focused on using fall protection equipment safely at height and includes hands-on training.
- Developed in conjunction with the Canadian Association of Oilwell Drilling Contractors (CAODC).

Fall Rescue for Rig Work: No Expiry (Prerequisite: A valid Fall Protection for Rig Work Certificate)

- Learn how to perform rescues safely when working at heights.
- Designed for workers, supervisors, managers and safety personnel who work in an environment where they may be required to perform rescues at height and includes hands-on training.
- Developed in conjunction with the Canadian Association of Oilwell Drilling Contractors (CAODC).

Special Oilfield Boiler: Expiry 3 years

- Designed for rig personnel who operate an oilfield boiler, with a capacity of up to 1000 kw
- Learn how safely operate an oilfield boiler, to identify the components, operation and field maintenance of the oilfield boiler, and apply necessary troubleshooting and general safety procedures
- Prepare to write the Alberta Boilers Safety Association (ABSA) Special Oilwell Operator exam

Off-Highway Defensive Driving: No Expiry

- Self-study course is intended for all personnel who drive on off-highway roads
- This includes field staff, office personnel, summer students, etc. who drive out to the field
- The emphasis is on practical, usable techniques and procedures
- Practical training through coaching and observation

ATV / Loader Operator: Expiry 3 years

- Designed for personnel who operate a various mobile equipment - loader, forklift or 'skidsteer' (Bobcat)
- Course material specific to the loader type, and will include regulations, safe operation, PPE, seat belt use
- Classroom and practical training and exam

CTEC Off-Road and Defensive Driving: Expiry 3 years

- 3 day intensive training (practical, simulator & theory)
- Learn skid control in both icy and muddy conditions
- Develop evasive steering methods

ADDITIONAL UPSTREAM SPECIFIC COURSES

The courses above describe the minimum that must be provided by law.

Additionally, Canadian companies develop internal training programs that are general and job specific in nature.

A generic version of a drilling contractor is displayed below.

We can provide similar training tailored to your specific needs.

◆ Risk Assessments

- Basic Risk Assessment Questions
- Training Strategy
- How to Assess Risk in the workplace
- Three types of individuals associated with risk
- Workshop

◆ Observation and Intervention Program

- Program description - method
- Why we need the program
- How the program works

◆ JSA Training

- What is JSA
- How to write JSA
- Review JSA Book
- When to use JSA
- Workshop
-

◆ **Developing Effective Meetings**

- **Developing effective doghouse/daily meetings**
- **Developing effective monthly meetings**
- **New employee safety orientation**
- **Drillers Memo Book**
- **Energy Regulator (EUB) Checklist**
- **Event Investigation and reporting**
- **Drilling rig and crew safety program: policies & responsibilities**
- **Reference Material (Rig Move Reference Manual, MSDS Binder, JSA Binder, CAODC Drilling Manual, Fall Protection Manual, Drilling Rig Inspection Manual)**

◆ **Rig or Facility Inspections and Additional Training**

- **Level I, II, III overhead, tongs, 5th wheel pin, brakes**
- **CAODC monthly rig inspection**
- **EUB checklist and inspection manual**
- **Rigging and slinging training**
- **Rig move hand signaling and spotters (look-out) training**
- **Supervisor walk-around**

◆ **Preventative Maintenance**

- **Oil and coolant samples**
- **Pump expendables log book**
- **Maintenance manual - Engines, Power Ends & Drives**
- **Motors log book**
- **BOP Care & Maintenance**
- **Tubular Care/Maintenance**
- **Air Compressors and Hydraulics**
- **Boiler Care & Maintenance**
- **Overhead Equipment / Load Limits / Crown Saver**
- **ESD (Emergency Shut Down)**

◆ **Safety Equipment and Systems**

- **Safety Equipment Lists**
- **Doghouse Memo book**
- **Orientation and Employee Safety Handbook**
- **Drilling Rig and Crew Safety Program: Policies and Responsibilities**
- **Fit Testing**
- **Use of Gas Monitor**
- **Emergency Drills**
- **Lock out – Tag out**

Detection and Control of Flammable Substances: Expiry 3 years

- **For personnel who monitor potentially hazardous atmospheres in the workplace**
- **Understand how to safely monitor, assess hazards and control flammable substances through lectures, demonstrations and hands-on practice**
- **Topics include Principles of flammable gas/vapour, care and preparation of combustible gas monitors, sampling strategies interpretation of monitor readings and control methods for high gas readings**

Confined Space Entry and Monitor: Expiry 3 years

- Six hours in duration and includes an instructor led presentation, review exercises, class discussion, DVD presentation, and written knowledge test for personnel who may need to work in a confined space.
- Topics include confined space entry definition, legislation, entry preparation, gas testing, signage / tagging LO-TO isolations and blinds
- Confined Space Monitor (Attendant) responsibilities

Oil or Gas Production Operator: No Expiry

- For operators, technologists and technicians who wish to enhance their skills in oil or gas operations.
- Learn duties and responsibilities of an operator, including safe operating practices, the processes involved and how to operate typical equipment
- Topics include separators, treaters, wellhead equipment, pumping equipment and flowlines
- This course provides a 50% classroom theory portion an 50% hands-on training portion
- This is a 5 day course

There are many other training courses available for the downstream sector that relates specifically to transportation of hydrocarbons and other fluids and unique tasks only found at oil refining and gas plant facilities.

Examples are Artificial Lift Systems, Cathodic Protection Rectifier, Electrical Maintenance, NORM (Naturally Occurring Radioactive Material) Awareness, Perforators Safety, Production Optimization, Vapour Plume Ignition and ARC Flash Awareness

For pipelines and in oilfield activity in previously developed areas we have training available that relates to line location such as Basic Buried Facilities Locator and multi-tiered Ground Disturbance programs.

The road transportation sector has its unique hazards. Examples of courses offered by industry includes Wellhead Boom Truck Operator, Oilfield Hauler, Oilfield Driver Awareness training, Fuelling Practices, Power Line Safety and Awareness and Journey Management.

Fire Prevention and leak detection strategies through engineering controls, such as design, suppression, active and passive fire protection systems, and emergency shut down systems are prevalent in industry. Basic and Advanced Fire-fighting capabilities exist at all facilities to deal with all incidents.

Canadian Industrial fire-fighting has excellent credentials globally and its complexity is such it would require a separate proposal

Typical Mid-sized Canadian O&G Company Training Matrix

CORE SAFETY TRAINING CERTIFICATION REQUIREMENTS																COMMENTS
1 - SAFETY ORIENTATION	2 - TEG	3 - H2S	4 - FIRST AID/CPR (Level 1)	5 - RESCUE	6 - CONFINED SPACE ENTRY	7 - ADDITIONAL SAFETY COURSES (As per 7)	8 - DRIVER TRAINING	9 - FIRE SUPPRESSION	10 - CONFINED SPACE ENTRY	11 - ALL TERRAIN VEHICLE (ATV)	12 - MINING (Specialty)	13 - OTHER PROTECTION	14 - SITE-SPECIFIC TRAINING	15 - SITE-SPECIFIC TRAINING	16 - SITE-SPECIFIC TRAINING	
CS	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Know Safety - No Pain (Field Travel)																
No Safety - Know Pain (Engineers/Technologists)																
Drilling/Completion Engineers																
Project & Facility Engineers																
Technicians/Operators																



Core Training (C) -
Courses are mandatory
requirements
Field Specific Training (F) Applies to certain job groups

ATTITUDE SAFETY

Safety Performance can be achieved through the implementation of rules, standards, training, discipline and enforcement.

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- A lack of understanding or communication is the root cause of many incident and near-misses.
- Combined with coaching and mentoring, INTERACTIVE TRAINING courses are designed to develop the “people skills” of communicating better and managing difficulties more effectively

Below is a small sample of the most popular courses that our HSE team found the most effective.

Communicating Effectively: No Expiry

- For managers, supervisors and those who wish to enhance their skills in ‘sending the message’
- Learn listening skills, understand why difficulties occur due to many human factors
- An engaging method on how to intervene and stop unsafe situations

Understanding Behavioural Styles: No Expiry

- Using DISC behavioural model and questionnaire participants identify their own style
- Exercises identify ways to successfully manage interactions with people of differing styles
- Work activity situations are discussed to identify problem areas and solutions

Personal Injury Prevention: Expiry 3 years

- For all employees - Awareness of injury risks encountered in all aspects of work and life.
- Provides methods to improve balance and stability
- Basic personal risk assessment – An international risk model revisited on what can go wrong!
- Proven body positioning exercises that reduce injuries while stepping, handling, and lifting
- Work activity situations are discussed to identify problem areas and solutions

COMPETENCY MATRIX



	Standard	Renewal	Tech 1	Tech 2	Tech 3
Pre-requisites					
Driver's Abstract		1 year	0	0	0
H2S Alive	Enform	3 years	0	0	0
First Aid	St. John	3 years	0	0	0
Orientation			0	0	0
TDG		3 years	0	0	0
WHMIS		3 years	0	0	0
Drug and Alcohol Test (Annually)		1 year	0	0	0
Audiometric Test		1 year	0	0	0
Training					
Petroleum Safety Training/CSTS	ACSA/Enform	one time			
Fall Protection for Rig Work	Enform	3 years			
Fall Rescue for Rig Work	Enform	3 years			
Confined Space	Enform	3 years			
CTEC		3 years			
Incident and Accident Investigation		one time			
Lifting and Hoisting		one time			
Nabor's Rigging and Slings		one time			
Personal Insights Profile		one time			
First Line BOP	Enform	3 years			
Second Line BOP	Enform	3 years			
Well Service Blowout Prevention	Enform	3 years			
Ground Disturbance		3 years			
Leadership Training and Communication					
Safety Management and Regulatory Awareness					
Safe Start Awareness		one time			
Safety Meetings		one time			
OSSA Fire Watch		one time			
Asbestos Awareness		one time			
Fit Testing for Respiratory Protective Equipment		2 years			
Physical Demands Testing					
Benzene Awareness					
NORM Awareness					

Bloodborne Pathogen Awareness
 Oilfield Boilers
 Introduction to Microsoft Excel,
 Powerpoint and Word one time
 DDC
 Shelter In Place

Client Specific Training Requirements

Contractor Safety Management	PH7155 CBT	one time
Hazard Recognition Plus (Decision Point)	3.5 Hour Class	one time
Wells HSE MS /WIMMS	1 day class	one time
Incident Command System	ICS 100	
Incident Investigation (Tap Root)		
Management of Change	PH6197 CBT	one time
Permit to Work/JSA	PS7734 CBT	one time
Leadership	Global Training	
Forklift/GLG/Loader	PH7225 CBT	

On-line Training

Manager and Supervisor Due Diligence	one time
Office Ergonomics	one time
Lockout	one time
Fire Safety	one time
Aerial Lift	one time
Lift Truck	one time
Ladder Safety	one time
Material Handling	one time

Self-Directed/Advance Internal Training

ERT Level I	yearly
ERT Level II	yearly
Safe Track	one time
Safe Start	one time
Petex Normal Drilling	University of Texas one time
Safety Health & Environment Management Part 1	SAIT one time
Part 2	SAIT one time
Part 3	SAIT one time

Job Training

Drilling On Land	Evaluative
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Well Servicing on Land

Evaluative

NCSO Certification Courses

Principles of Health and Safety Management

one time
yearly

Auditor Training Program

submissions

Leadership for Safety Excellence

one time

Confined Space Entry/Monitor

one time

WHMIS Train-the-Trainer

3 years

Prime Contractor

one time

Basic Instructional Techniques

one time

Alberta Legislative Awareness

one time

Safety Culture-Roadmap to Zero

one time

Workers Compensation Board

Effective Claims Management

one time

WSO Certification

Certified Safety Technician

one time

Certified Safety Specialist

one time