

Potentially Serious Incidents Summary

2019 Q1 - 2021 Q2 DATA

September 2021

TABLE OF CONTENTS

1.0 INTRODUCTION & OBJECTIVE.....	4
2.0 REPORTING RATES & TRENDS OVER TIME.....	4
3.0 REPORTS PER INDUSTRY SECTOR.....	6
4.0 INCIDENT CLASSIFICATIONS	7
4.1 Source per Type.....	8
5.0 INJURED PERSON DEMOGRAPHICS.....	9
6.0 INCIDENT FOLLOW-UP	10
DISCLAIMERS.....	11

EXECUTIVE SUMMARY

OVERVIEW

To help industry understand common trends and encourage conversations around prevention efforts, this report summarizes potentially serious incident (PSI) data from the AB oil and gas industry for the period Q1 2019 to Q2 2021.

SUMMARY

Changes to the PSI definition back in 2018 and pending in 2021 are very important to ensuring that PSIs are targeted at the right level to maximize the learning potential in the prevention of serious incidents. However, the evolving optimization of the PSI definition is likely, in part, associated with the declining yearly trend in PSI submittals.

PSI submissions increased since the last report was issued, because of COVID-19 reporting. COVID-19 incidents typically exposed more people per incident comparatively. However, the submission of non-COVID-19 PSIs has continued to decline, consistent with the trend identified in the past report.

Only a small portion (5%) of active oil and gas companies have submitted PSI reports. This 5% makes up approximately a third of the industry activity. Opportunities exist to encourage more reporting across the entire industry.

This trend and disproportionate number of submitting companies, highlights a unique challenge that exists with PSI data. PSI messaging, tracking and targets have the potential to negatively impact PSI identification and submission. PSI data is a lagging indicator because an incident has occurred; however, it is also provides an indication of potential future serious incidents.

This complexity means that traditional approaches in relation to health and safety data, such as reducing incident reporting frequency, may not result in the desired outcome of preventing serious incidents. For example, is a company with no reported PSIs less likely to have a serious incident? The primary goal should be to obtain 100% reporting of PSIs and maximize the opportunities for operational learning (i.e., learning from workers). This learning can lead to follow-up actions that build capacity to ensure a serious incident is no longer possible (i.e., capacity to fail safe), rather than just less likely. To encourage reporting and operational learning, how leaders respond to a potentially serious incident matters.

Many of the PSIs align with Energy Safety Canada's Life Saving Rules, with more than half aligning with Line of Fire. Based on conversations with industry and limited additional data provided by Alberta OH&S (Occupational Health & Safety), many of these incidents involve numerous organizational factors that contributed to the PSIs. Therefore, it is not simply a worker not following a rule. As a result, follow-up actions that are limited to training and policy changes miss the opportunity to ensure a future serious incident cannot occur.

PSI DEFINITION

According to Alberta OH&S, a PSI is “any event where a reasonable and informed person would determine that under slightly different circumstances, there would be a high likelihood for a serious injury to a person.”

Employers can report PSIs online and must include a description of the event, the number of people involved and/or injured during the event, and any follow-up actions they implemented as a result.

The definition of PSI was revised at the end of 2018 by Alberta OH&S. Therefore, only data from 2019 onwards is included in this report.

1.0 INTRODUCTION & OBJECTIVE

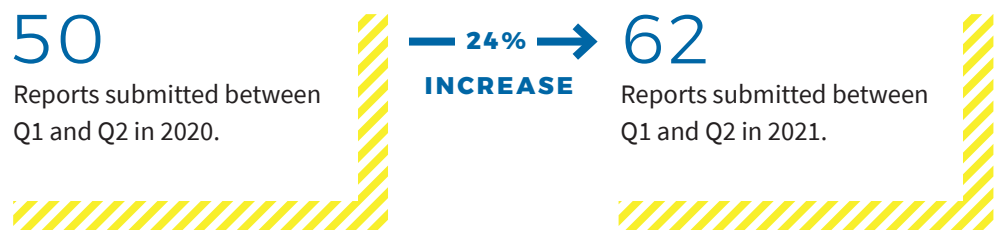
In 2018, it became mandatory for Alberta employers to report potentially serious incidents (PSIs) to Alberta Occupational Health and Safety (OH&S). OH&S has provided some of the resulting data to Energy Safety Canada (ESC), for ESC’s funding industry codes.

This report provides a summary of potentially serious incident data from the Alberta oil and gas industry, for the purposes of understanding common trends and encouraging broader conversations around industry prevention efforts.

Data represents the time period of Q1 2019 to Q2 2021.

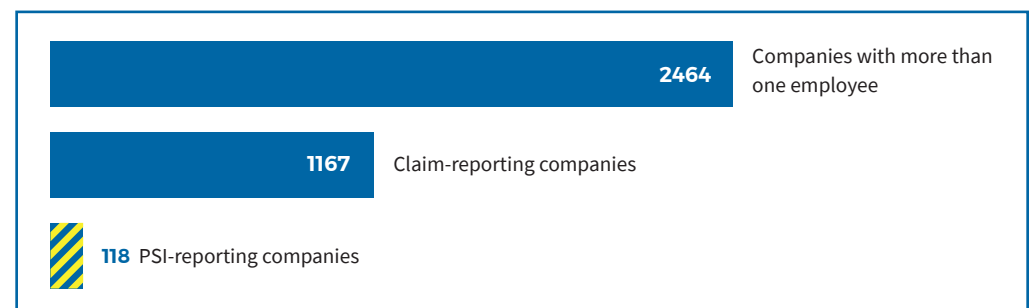
2.0 REPORTING RATES & TRENDS OVER TIME

The number of reports has increased because of COVID-19 reporting.



Over the last two years, there were about 2,500 registered companies in Alberta’s oil and gas industries with more than one employee. Only a small portion of active oil and gas companies (5%) have submitted PSI reports since the program began. For comparison, about one third, (1,200 companies) had an incident that became an injury claim with the WCB.

COMPANY COUNTS IN ALBERTA O&G



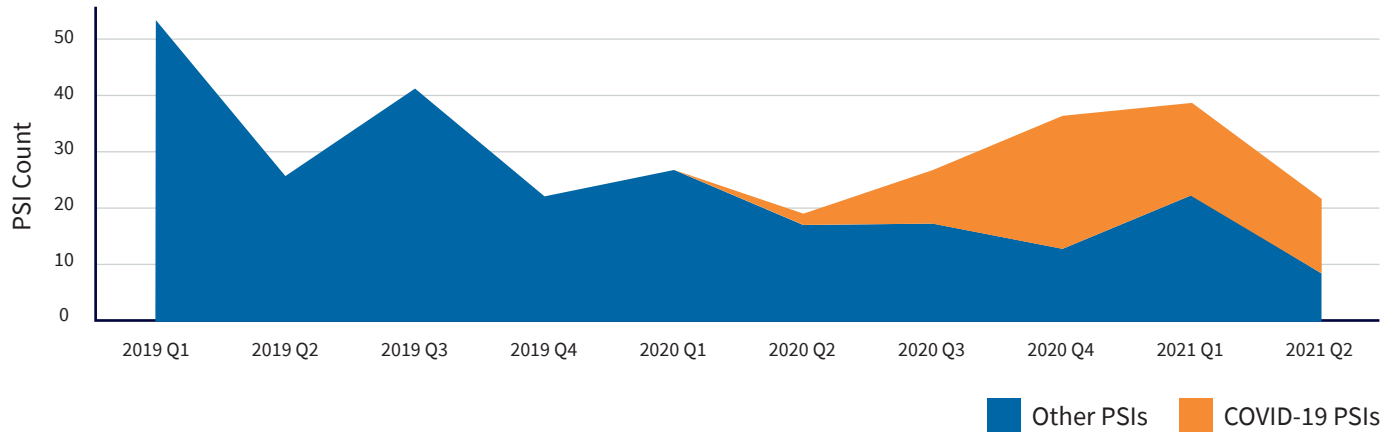
ACTIVITY IN ALBERTA O&G (PERSON YEARS)



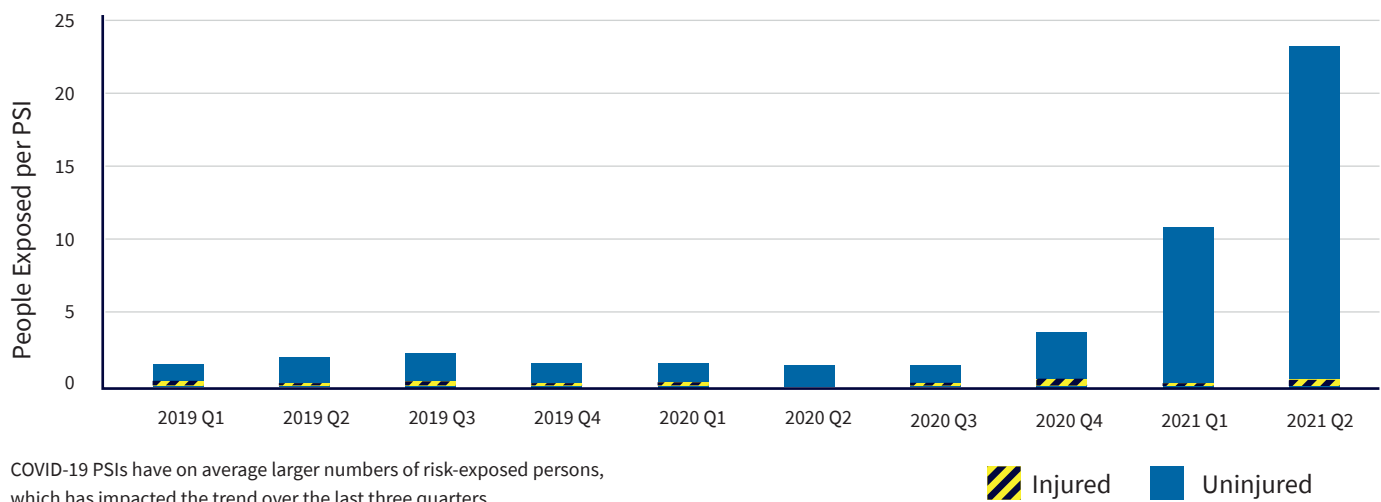
2.0 REPORTING RATES & TRENDS OVER TIME

Opportunities exist to encourage more reporting across the entire industry.

REPORTED POTENTIALLY SERIOUS INCIDENTS, BY QUARTER



EXPOSURE RATE, BY QUARTER



COVID-19 PSIs have on average larger numbers of risk-exposed persons, which has impacted the trend over the last three quarters.

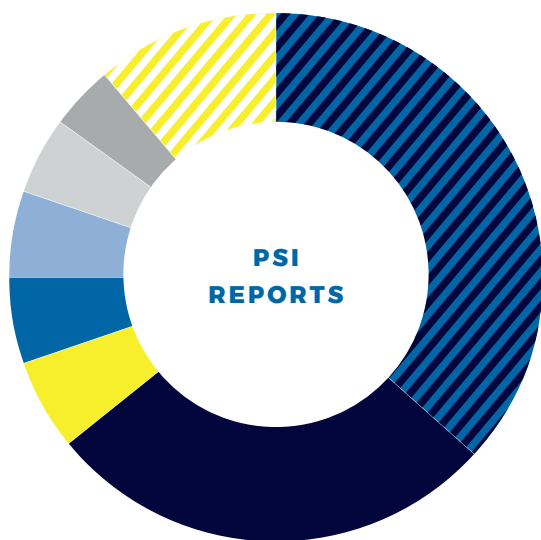
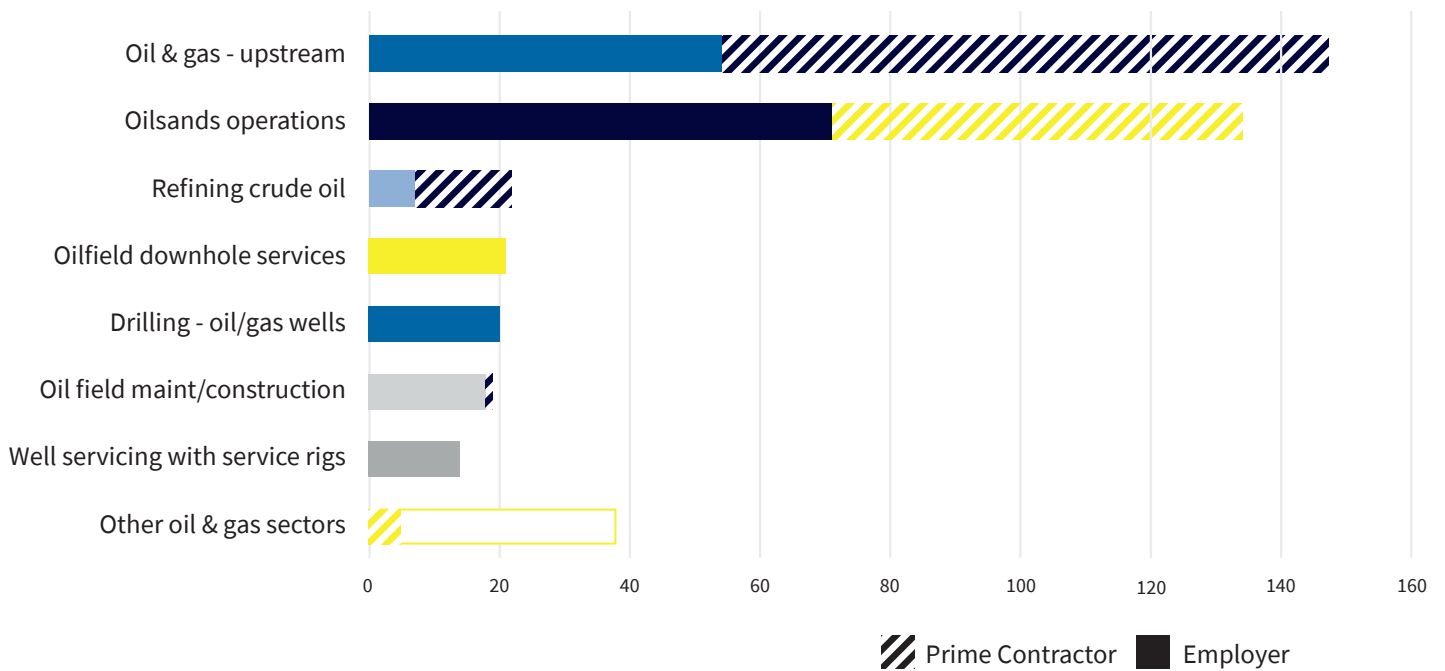
On average, 4.7 people are exposed to a typical PSI and 8% of exposures resulted in an injury. Companies are encouraged to reflect on their own ratio of near miss PSIs to injury PSIs.









Year	Participating companies	PSI report count	People exposed	People injured	Average exposed per PSI	% Injured per exposed
2019	83	142	266	52	1.87	20%
2020	74	115	257	38	2.23	15%
2021 Q1-Q2	48	62	962	22	15.52	2%
TOTAL	164	319	1485	112	4.66	8%

3.0 REPORTS PER INDUSTRY SECTOR

Reports where both a prime contractor and the employer were involved are counted twice.

PSI REPORTS (INCIDENT RELATIONSHIP BY SECTOR)



-  37% Oil & gas - upstream
-  28% Oilsands operations
-  6% Oilfield downhole services
-  5% Drilling - oil/gas wells
-  5% Refining crude oil
-  5% Oil field maint/construction
-  4% Well servicing with service rigs
-  11% Other

4.0 INCIDENT CLASSIFICATIONS

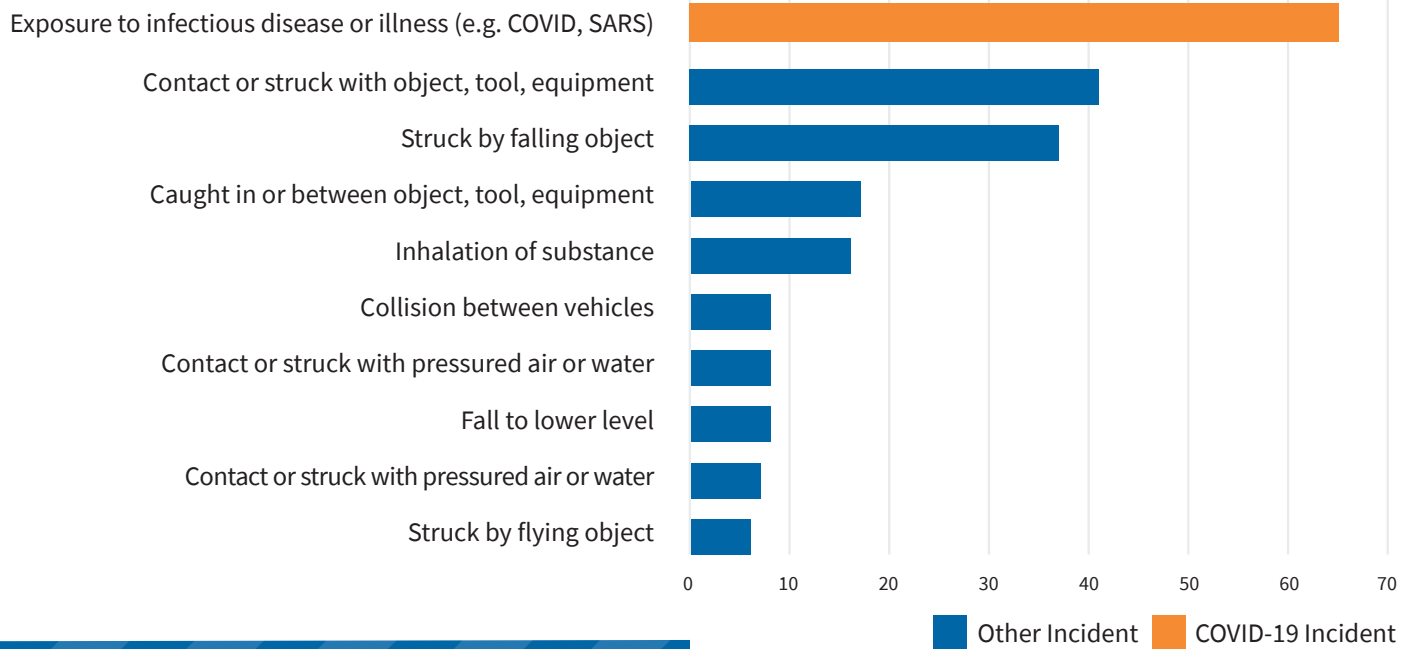
The graphs below show the most common types of incidents that could have caused serious injuries, and the sources of those potential injuries.

The majority of reports over the past three quarters have been COVID-19 related. Outside of COVID-19, approximately half of the PSIs are line of fire related, with the most significant category being *struck by falling object* involving construction materials and hand tool - non-powered.

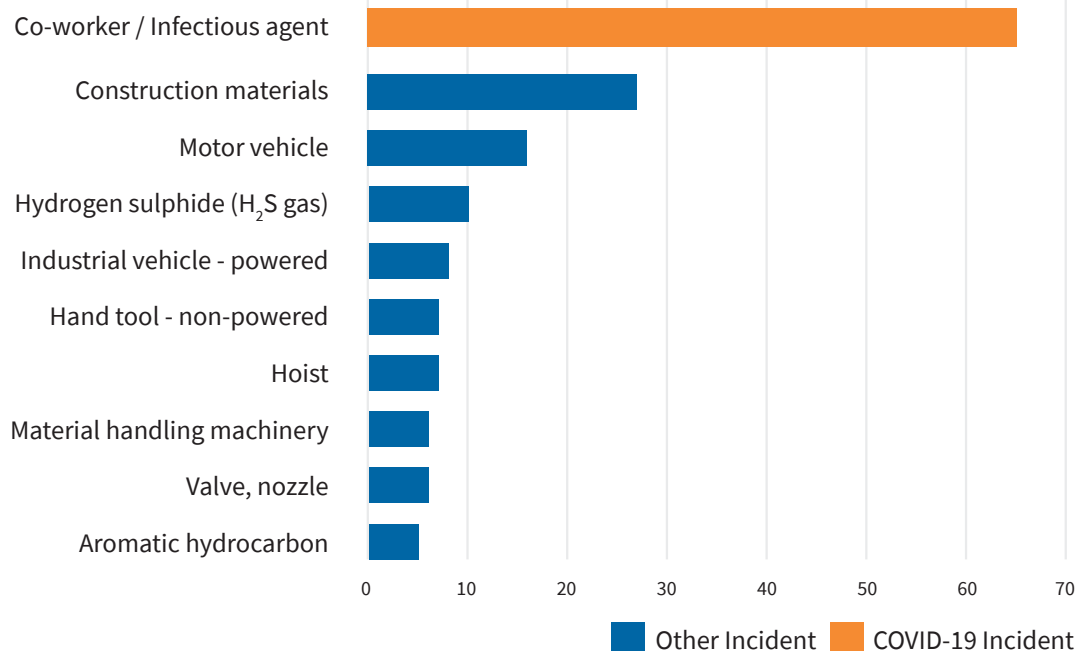


TOP 10 INCIDENT TYPES (INCIDENT COUNT)

LINE OF FIRE



TOP TEN SOURCES OF INCIDENT (INCIDENT COUNT)



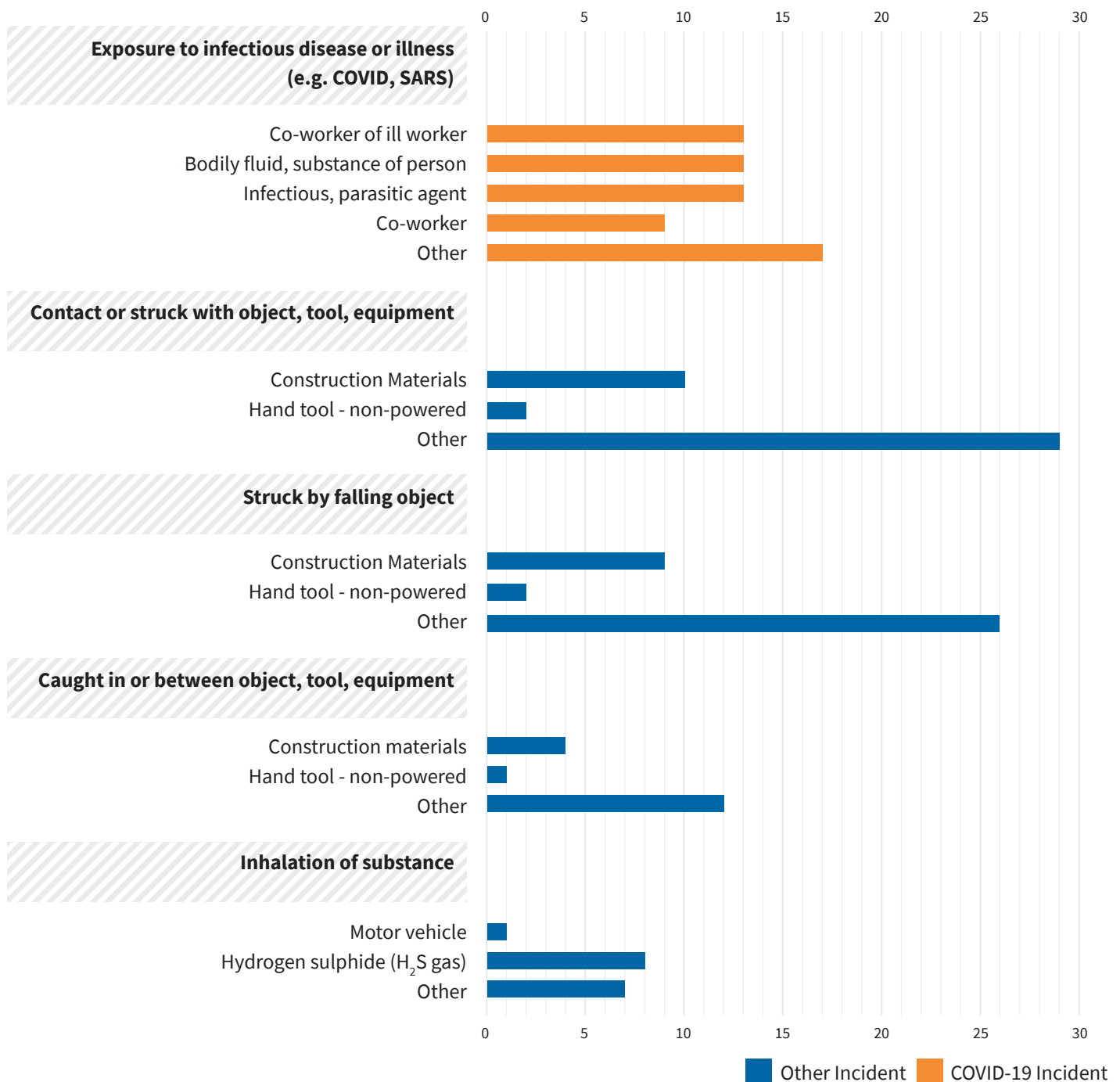
4.0 INCIDENT CLASSIFICATIONS

4.1 SOURCE PER TYPE

The main sources of the top five incident types are listed below.

Note that *Struck by falling object* and *Contact or struck with object, tool, equipment* each have a large *Other* category for source of incident. This is simply due to the large number of potential sources (hoists, machinery, ice, fasteners, etc.); there is no major source of incident that is not shown.

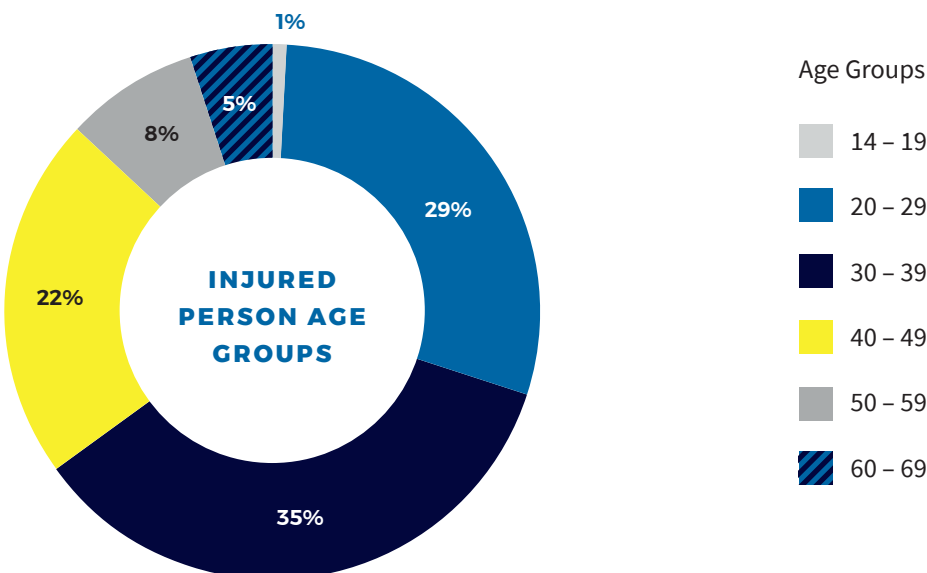
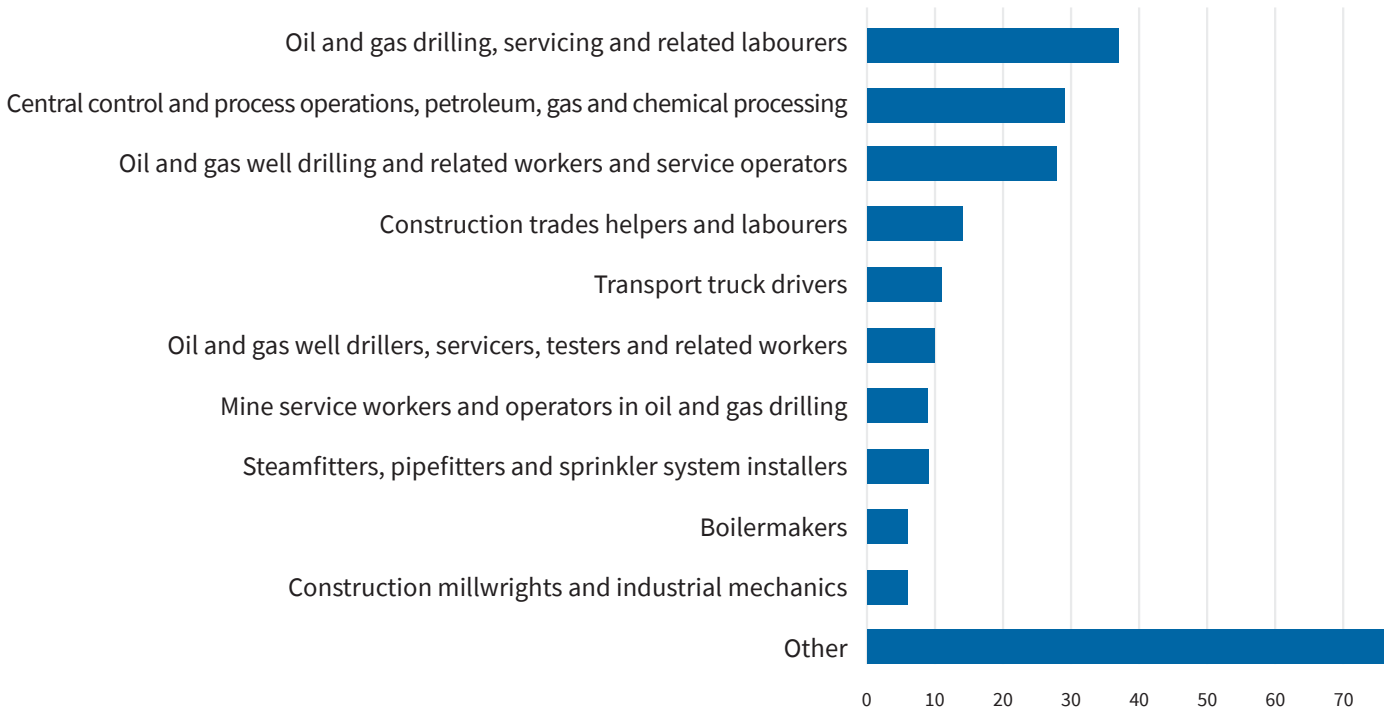
SOURCES OF THE TOP FIVE INCIDENT TYPES (INCIDENT COUNT)



5.0 INJURED PERSON DEMOGRAPHICS

The graphs below show the demographics of people who were injured during a PSI. PSIs where no people were injured are not accounted for.

INJURED PERSON OCCUPATIONS



6.0 INCIDENT FOLLOW-UP

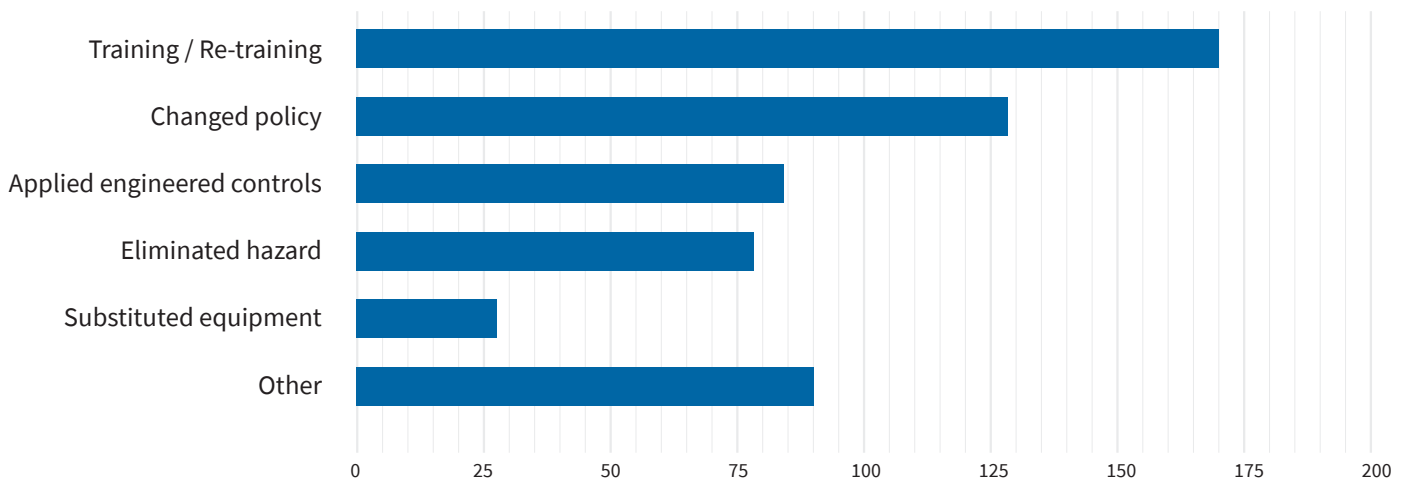
On average, one or two follow-up actions are implemented after a potentially serious incident is reported.

“Training” and “Changed Policy” are the most common follow-up actions over the last two years.

A stronger focus on elimination, substitution and engineering controls is worthy of future consideration.



FOLLOW-UP CONTROLS IMPLEMENTED



YEAR	2019	2020	2021 Q1-Q2	TOTAL
Total PSI Count	142	115	62	319
All Controls	210	244	123	577
Training / Re-Training	55	73	42	170
Changed Policy	56	52	20	128
Applied Engineered Controls	26	45	13	84
Eliminated Hazard	36	25	17	78
Substituted Equipment	11	9	7	27
Other	26	40	24	90
Controls per PSI	1.5	2.1	2.0	1.8

RESOURCES

Energy Safety Canada PSI Program:

<https://www.energysafetycanada.com/Standards/Programs/Potentially-Serious-Incidents>

Energy Safety Canada PSI Guideline:

<https://www.energysafetycanada.com/Attachments/DownloadResource?attachmentGuid=43682b9f-8eb0-41fe-b841-eb784c3f363a&open=True>

Alberta OH&S Reporting and Investigating Potentially Serious Incidents Bulletin:

<https://ohs-pubstore.labour.alberta.ca/download/sample/513>

List of oil and gas industry sectors:

https://admin.energysafetycanada.com/getmedia/d16c7e8e-2f1a-486b-aefc-ea95b6a670cc/EnergySafetyCanada_WCB_Codes.pdf

GLOSSARY

Industry Sector

Groupings of employers who have similar businesses and risks as one another. Defined by WCB Alberta. This report contains data from all Alberta oil and gas industry sectors.

Person

The Alberta definition is not limited to workers and includes other persons, such as the public, that may be impacted as well.

PSI

Potentially serious incident. Any event where a reasonable and informed person would determine that under slightly different circumstances, there would be a high likelihood for a serious injury to a person.

WCB

Workers Compensation Board. The mandate of the WCB is to provide compensation to workers who are injured on the job, and help them recover and return to work.

DISCLAIMERS

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