2018/19
Liability Management Rating Summary

BC Oil & Gas COMMISSION

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About the BC Oil and Gas Commission

The Commission is the provincial single-window regulatory agency responsible for regulating oil, gas and renewable geothermal activities in British Columbia, including exploration, development, pipeline transportation and reclamation.

The Commission provides regulatory excellence in responsible energy resource development by protecting public safety, safeguarding the environment and respecting those individuals and communities who are affected.

Core responsibilities include reviewing and assessing applications for proposed industry activities, consulting with First Nations, co-operating with partner agencies, and ensuring industry complies with provincial legislation and all regulatory requirements.

For general information about the Commission, please visit www.bcogc.ca or call 250-794-5200.

Vision

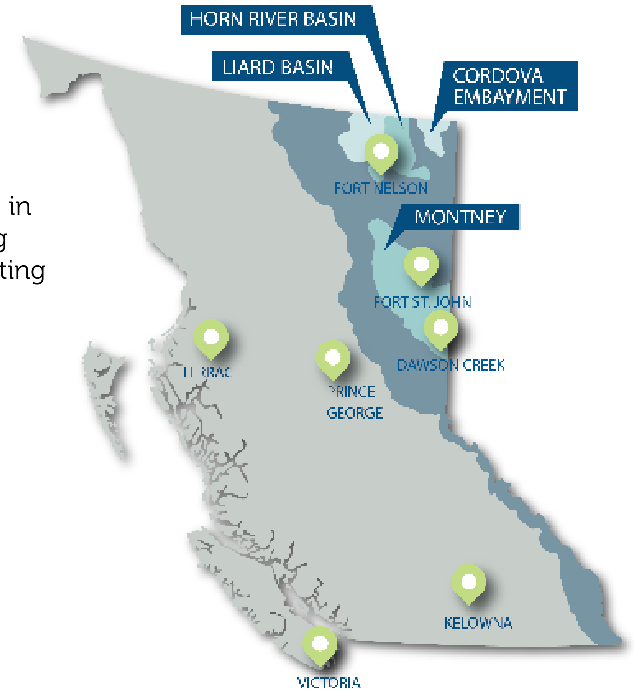
Safe and responsible energy resource development for British Columbia.

Mission

We provide British Columbia with regulatory excellence in responsible energy resource development by protecting public safety, safeguarding the environment and respecting those individuals and communities who are affected.

Values

Transparency
Innovation
Integrity
Respect
Responsiveness



2018/19 Liability Management Rating

About This Summary

Decommissioning and restoration of oil and gas sites in British Columbia is regulated by the BC Oil and Gas Commission (Commission). Permit holders are required to properly deactivate and abandon wells, facilities and pipelines, and restore disturbances to meet regulatory closure. The purpose of the Liability Management Rating (LMR) program is to ensure permit holders carry the financial risk of their operation through to regulatory closure by identifying permit holders with deemed liabilities that exceed deemed assets (a LMR below 1.0) and to require security for the risk inherent in the calculation.

Background

The authority to collect security falls under *Section 30* of the Oil and Gas Activities Act. A permit holder's LMR is used to determine the amount of required security. Following the release of the LMR program, a deemed asset calculation was developed to determine the estimated value of a permit holder's production, processing and disposal infrastructure, and a liability model was developed to estimate abandonment and reclamation costs.

If at the time of review a permit holder's deemed asset is not sufficient to cover their deemed liability (a LMR below 1.0), or if their deemed asset is projected to be insufficient, security may be required. LMR reviews are conducted monthly and during asset transfer processes for all permit holders. This allows the Commission to increase security deposits should a permit holder's LMR decrease as a result of a divestment, or a drop in production, disposal, or throughput. Deposits can be returned to permit holders who no longer have permits in B.C., or if, in the opinion of the Commission, the security deposit is no longer required to secure the permit holder's obligations.

Objectives for the LMR Program

1. To protect the Orphan Site Reclamation Fund (OSRF), and ultimately the Crown, from bearing the costs associated with abandonment and reclamation activities.

2. To ensure adequate security is provided by permit holders to address the risk that oil and gas sites will not be adequately abandoned and reclaimed.

3. Provide incentive for industry to actively manage liability obligations.

LMR Calculation

The LMR is the calculated ratio of estimated operational assets and security deposit to estimated decommissioning liabilities for permit holders. The LMR equation is as follows:

$$\text{LMR} = \frac{\text{Deemed Assets + Security Deposit}}{\text{Deemed Liabilities}}$$

Additional information can be found at: http://www.bcogc.ca/industry-zone/liability-management-rating-program

LMR Permit Holder Categories

Producers

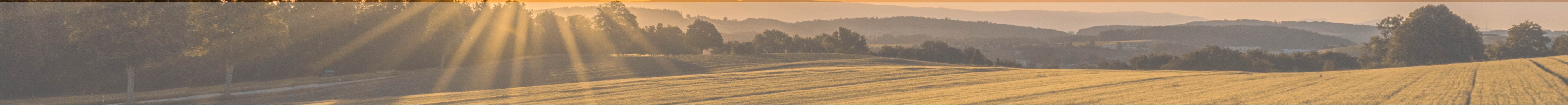
Permit holders whose operations and deemed assets are primarily in the form of gas and/or oil production.

Disposers

Permit holders whose operations and deemed assets are primarily in the form of downhole oil and gas waste disposal.

Processors

Permit holders whose operations and deemed assets are primarily in the form of processing raw gas into marketable gas.

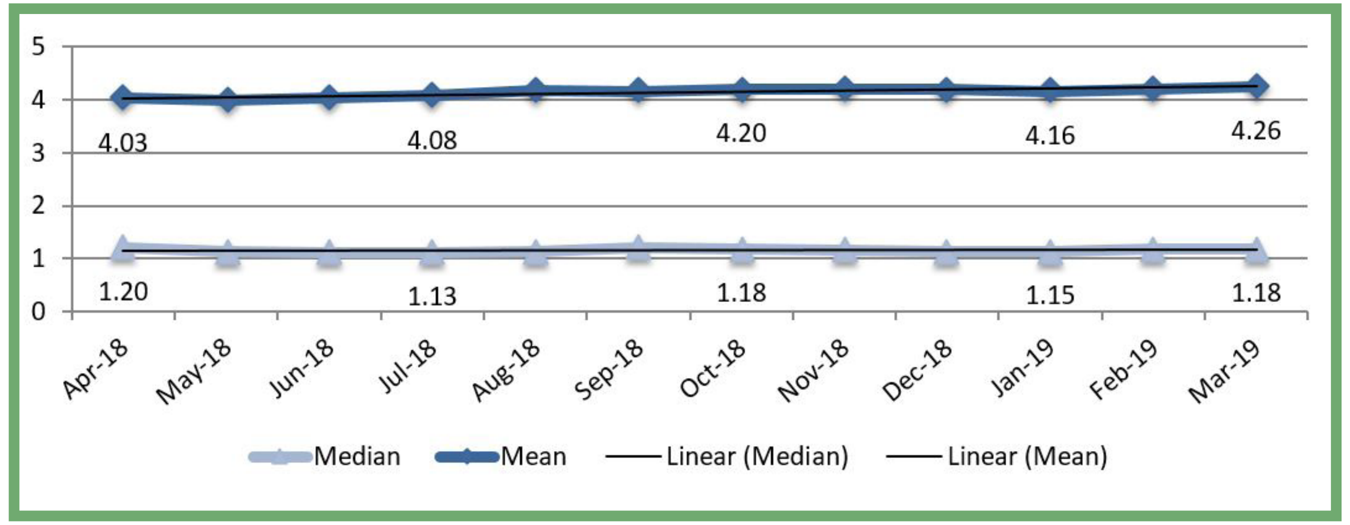


Permit Holder LMRs

The Commission measures the mean (average) and median (central point) LMR of all B.C. producers, disposers, and processors to spot trends in the overall ability of the industry to meet its closure obligations. Identifying trends that may be indicative of lower industry financial health can inform the Commission of when program changes may be necessary.

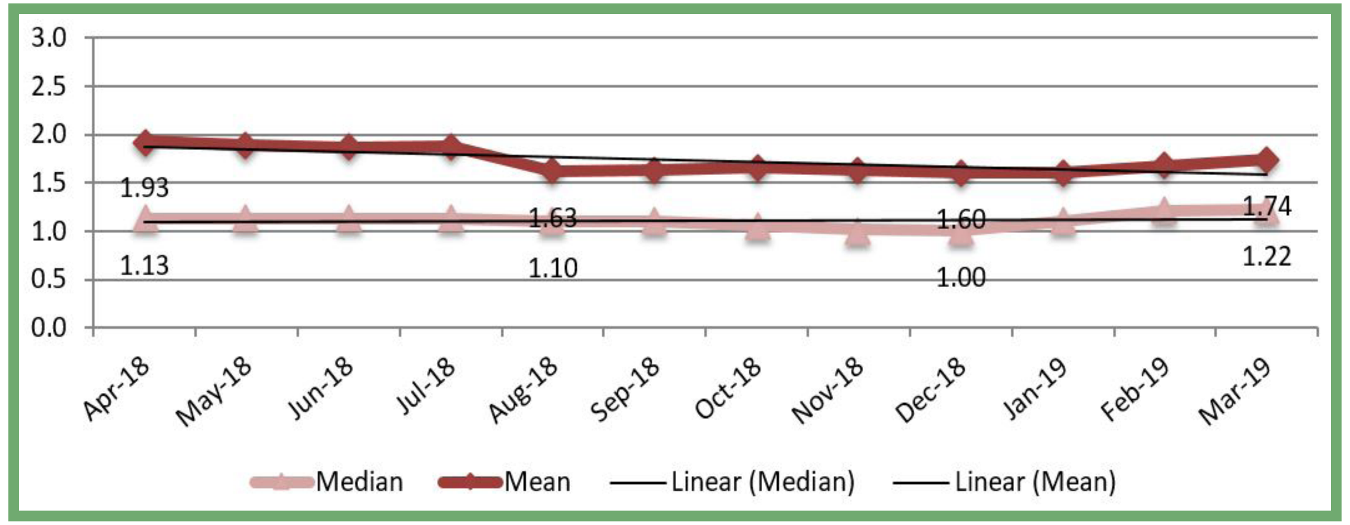
The following figures illustrate the mean and median LMR for permit holders over time in each business category.

FIGURE 1 - Mean and Median of Producers



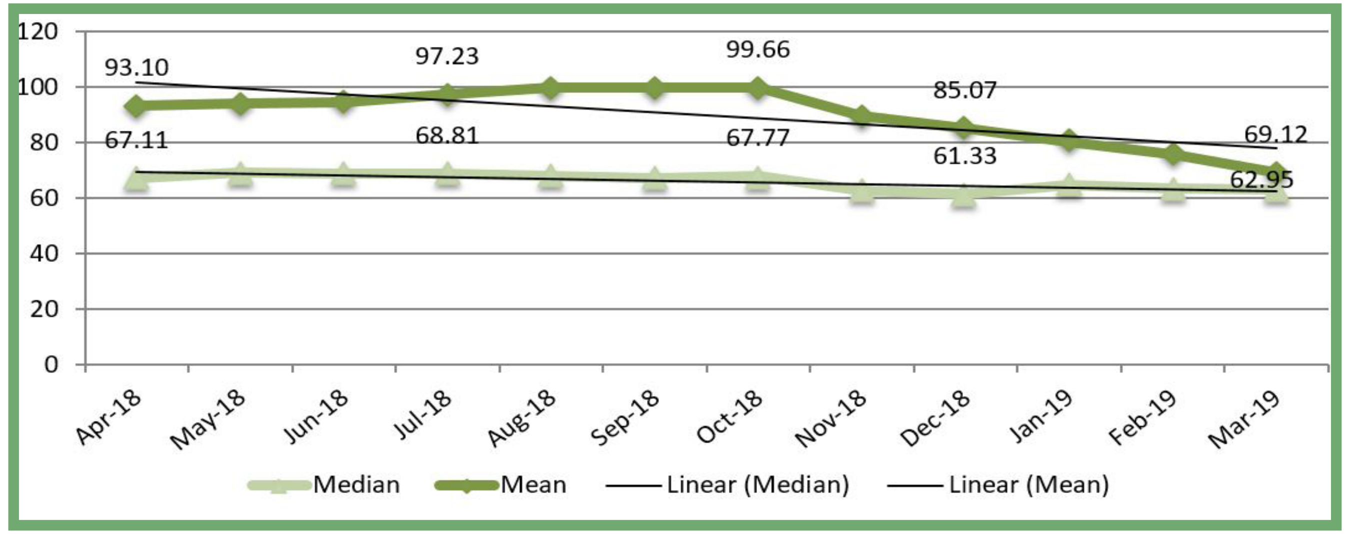
As evidenced in Figure 1, the median LMR for producers was largely flat through the year, while the mean gradually increased. Year-over-year compared to 2017-18, the median LMR of producers has declined, while the mean LMR of producers has increased. The reason for this is that the LMR values of a small number of Montney producers are increasing, while a larger proportion of producers overall are seeing their LMRs decline. This trend is expected to continue moving forward as the capital costs of unconventional oil and gas development limit growth opportunities for smaller firms.

FIGURE 2 - Mean and Median of Disposers



The median and mean LMRs of disposers declined in the middle of the year before recovering towards the end of the year. Due to the small number of companies, any changes in the LMR of an individual company can affect the whole category.

FIGURE 3 - Mean and Median of Processors

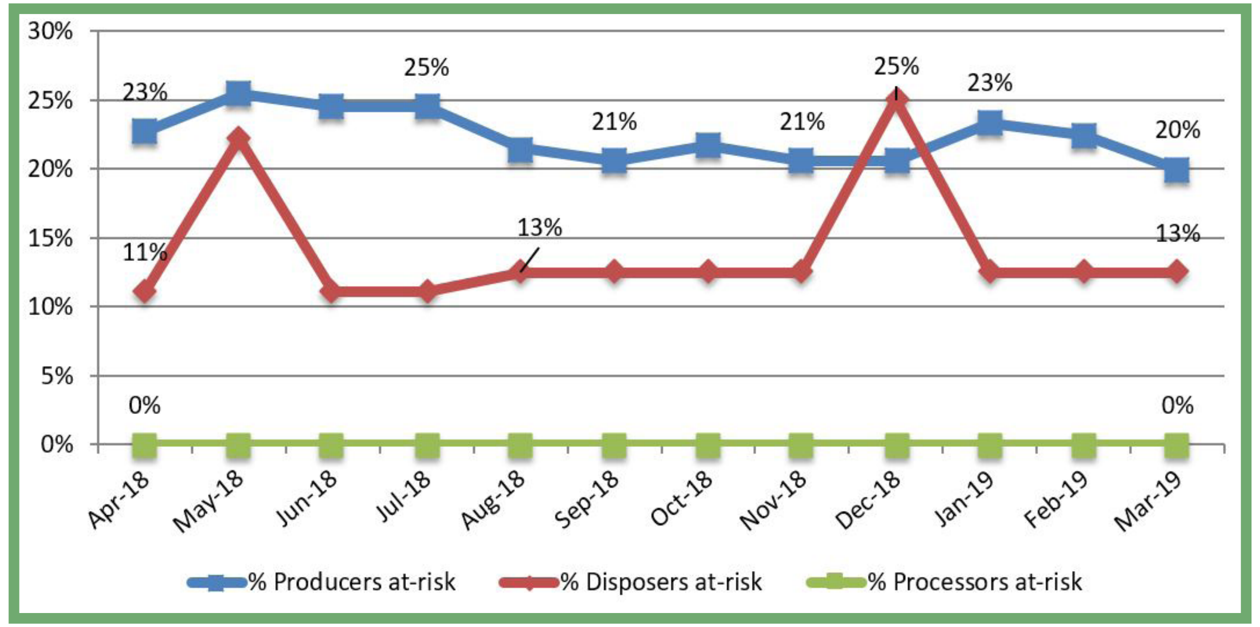


The mean and median for processors was generally flat through the year, until a decline in the mean occurred over the last six months. The reason for the decline is that one company is experiencing reporting issues. Eight of 10 processors were significantly above a LMR of 1.0 throughout the year. While the mean and median are unlikely to fall close to a LMR of 1.0, the LMR program may continue to observe fluctuating measures due to the small number of processors.

At-Risk Permit Holders

Permit holders are identified as a potential financial risk (at-risk) if the total of their deemed assets and security deposit are less than deemed liabilities. The following figure illustrates the proportion of B.C. permit holders found to be at-risk over time[1].

FIGURE 4 - Percentage of Permit Holders Below Threshold



The number of at-risk producers in the LMR program has remained consistently high for the past three years, indicating the number of permit holders with potential financial risk in their operations has grown as depressed gas pricing persists. The number of at-risk producers peaked at 25 per cent in May 2018, before declining over time to 20 per cent in March 2019. In the disposer category, one company consistently saw their LMR drop under 1.0. Not a single processor fell under a LMR of 1.0 in the fiscal year.

As permit holders enter B.C., build new infrastructure, or experience production declines, the LMR program often sees temporary peaks in the percentage of those at-risk as they work to secure their liability; this is evident for disposers in the figure above.

Unsecured Liability

The LMR framework focuses requests for security to at-risk permit holders. Unsecured liability refers to the amount of deemed liability that exceeds the deemed asset in the calculation and is not covered by a security deposit. Unsecured liability includes both overdue security requirements issued and new security requests. Non-compliant operators with overdue security requirements have historically represented around half of the total unsecured liability.

Security deposit requirements fluctuate over time as the number of at-risk permit holders changes (e.g. corporate reorganization or production changes). The 2018/19 fiscal year saw one large company enter receivership during the year. The receivership of a company linked to Predator Oil BC Ltd. had a large impact as their unsecured liability rose to a high of $19 million in March 2019 following the shut-in of part of their production.

[1] This target measures the proportion of at-risk permit holders rather than the total number of at-risk permit holders since the total count changes over time (e.g. a reduction in the count will raise the target percentage).

Figure 5 illustrates the total amount of estimated liability requiring future security payment by at-risk producers. In the 2018/19 fiscal year, producers saw their total unsecured liability remain at a high level throughout the year. Slightly over $25 million of the March 2019 total unsecured liability was from non-compliant operators, which is significantly higher than March 2018. This is primarily a result of the increase in unsecured liability associated with Predator Oil BC Ltd.

The 2018/19 fiscal year was the fourth full year non-producers were included in the LMR program. The year saw the unsecured liability of processors remain at zero for the entire year. For disposers, unsecured liability remained under $65,000 throughout the year, as one company saw their LMR fall under 1.0.

High-Risk Permit Holders

The LMR program works with all willing permit holders to reduce their unsecured liability through the submission of security deposits, divestment guidance, or liability reduction through asset retirement. Permit holders that have not complied with security deposit requirements are deemed non-compliant under *Section 30* and enter a compliance and enforcement framework.

As of the end of the 2018/19 fiscal year, the Commission deemed seven permit holders as non-compliant. The Commission designated the assets of three permit holders as orphans during the fiscal year. The Financial Risk & Liability branch monitors non-compliant permit holders and actively seeks solutions to retire the asset.

FIGURE 5 - Total Unsecured Liability by Month (Producers)

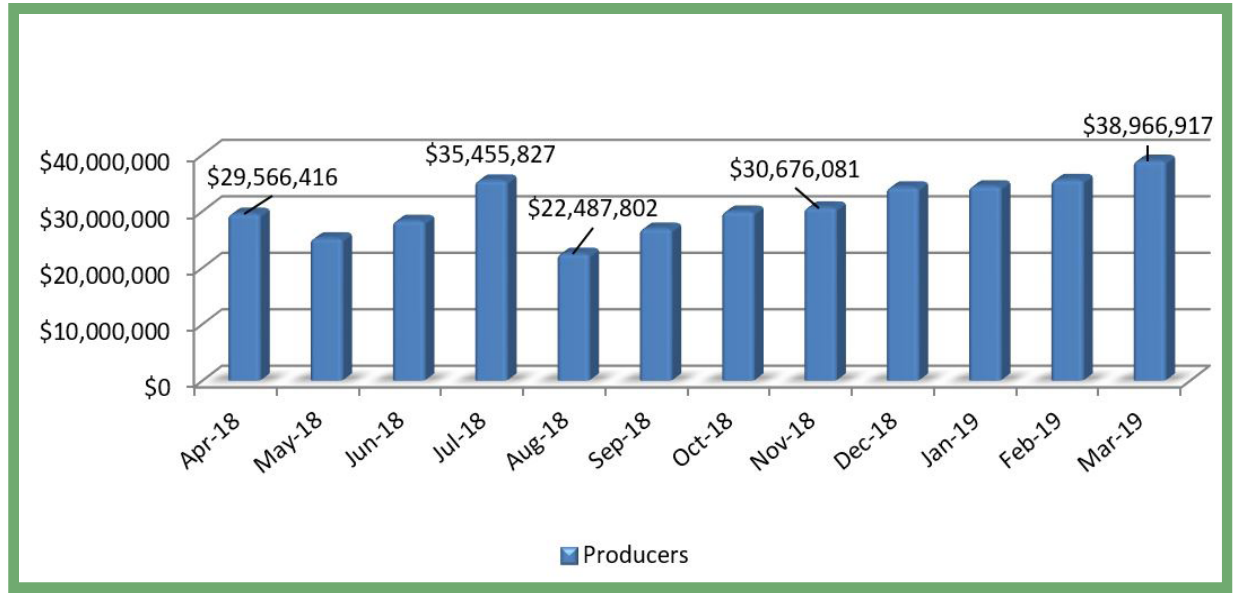
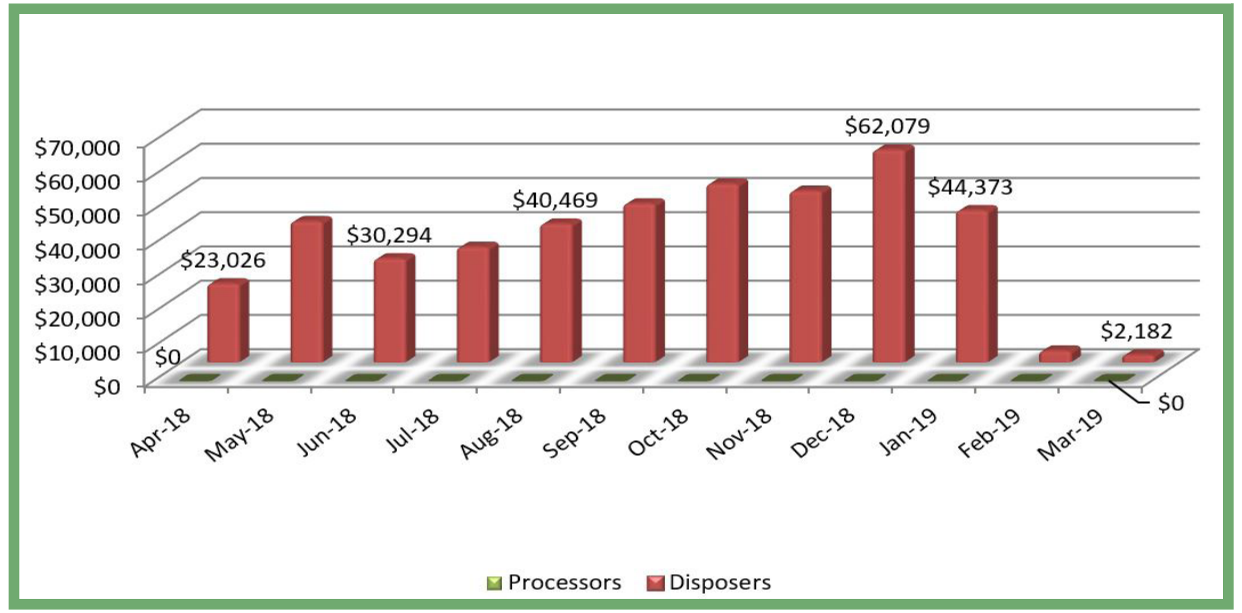


FIGURE 6 - Total Unsecured Liability by Month (Disposers and Processors)



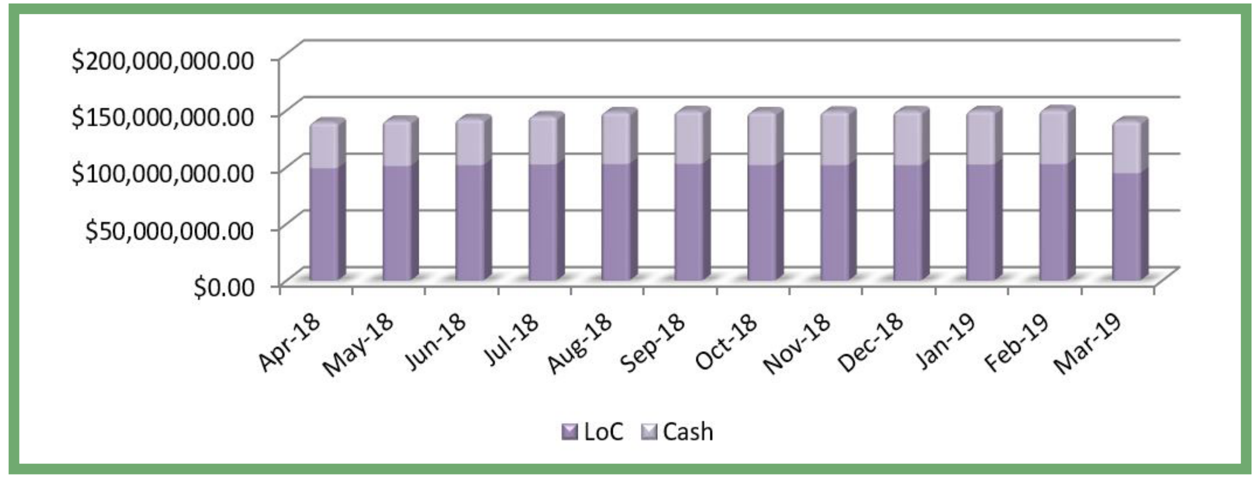
Permit Transfer Reviews

The Commission completes in-depth evaluations of all permit transfer requests to determine whether any transfers increase pressure on the Orphan Site Reclamation Fund. In addition to the requirement to maintain a post-transfer LMR of 1.0, the Commission bases decisions on security deposit requirements on production declines affecting deemed assets, as well as associated compliance issues. Permit holders are encouraged to contact the Commission's liability management staff at Liability.Management@bcogc.ca to inquire about potential transfer applications.

Security Deposits

During the 2018/19 fiscal year, the Commission saw an increase in security deposits for the fifth straight year. Operator preference for security submission has continued to be Letters of Credit for large security deposits and cash for smaller deposits. While 66 per cent of the total security amount held is from Letters of Credit, they represent only 33 per cent of the total number of security deposits.

FIGURE 7 - Total Security Deposits Held



Summary

The 2018/19 fiscal year continued to be challenging for the oil and gas industry in British Columbia. The impact of depressed gas prices continues to affect the productive capacity of many permit holders, as exhibited in the LMR program. As a result, the Commission saw an increasing number of permit holders at risk of insolvency over the course of the year. Despite the increase in security held, there is still financial risk evident in the LMR program.

The outlook for the 2019/20 fiscal year continues to look challenging, and the Commission is preparing for further financial impacts to the LMR program and the OSRF from insolvent companies. The Commission remains committed to working directly with permit holders to establish individual plans to manage financial risk and reduce exposure to the OSRF.

For more information on the Commission's LMR program or enquiries regarding this document please contact Liability.Management@bcogc.ca.

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