PULSE | YE

For the three months and year ended December 31, 2022

Selected Financial and Operating Information

(thousands of dollars except per share data, numbers of shares and kilometres of seismic data)	Three months ended December 31, 2022	Three months ended December 31, 2021	Years ended December 31, 2022	Years ended December 31, 2021
Revenue				
Data library sales	**2,411**	16,172	**9,345**	48,717
Other revenue	**28**	133	**225**	433
Total revenue	**2,439**	16,305	**9,570**	49,150
Amortization of seismic data library	**2,416**	2,500	**9,818**	10,010
Net earnings (loss)	**(1,948)**	8,158	**(7,907)**	21,514
Per share basic and diluted	**(0.04)**	0.15	**(0.15)**	0.40
Cash provided by operating activities	**761**	4,010	**11,992**	29,799
Per share basic and diluted	**0.01**	0.07	**0.22**	0.55
EBITDA[(a)]	**467**	13,835	**2,035**	42,632
Per share — basic and diluted[(a)]	**0.01**	0.26	**0.04**	0.79
Shareholder free cash flow[(a)]	**908**	10,828	**3,200**	32,082
Per share — basic and diluted[(a)]	**0.02**	0.20	**0.06**	0.60
Capital expenditures				
Seismic data digitization and related costs	—	62	—	350
Property and equipment	—	—	**12**	8
Total capital expenditures	—	62	**12**	358
Weighted average shares outstanding				
Basic and diluted	**53,633,862**	53,791,997	**53,703,039**	53,792,984
Shares outstanding at period-end			**53,626,869**	53,784,717
Seismic library				
2D in kilometres			**829,207**	829,207
3D in square kilometres			**65,310**	65,310

Financial Position and Ratios

(thousands of dollars except ratios)	December 31, 2022	December 31, 2021
Working capital	**6,593**	9,749
Working capital ratio	**6.8:1**	2.7:1
Cash and cash equivalents	**5,822**	—
Total assets	**35,222**	52,899
Long-term debt	—	2,265
EBITDA[(a)]	**2,035**	42,632
Shareholders’ equity	**33,496**	44,141
Long-term debt to EBITDA ratio	**0.00**	0.05
Long-term debt to equity ratio	**0.00**	0.05

(a) This non-GAAP financial measure is defined, calculated and reconciled to the nearest GAAP financial measure in the Management’s Discussion and Analysis.

Management's Discussion and Analysis of Financial Condition And Results Of Operations

Year ended ended December 31, 2022

YE 2022

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The following Management's Discussion and Analysis (MD&A) of the financial condition and results of operations of Pulse Seismic Inc. ("Pulse" or the "Company") for the year ended December 31, 2022 was prepared taking into consideration information available to February 16, 2023 and is supplemental to the audited consolidated financial statements and related notes for the year ended December 31, 2022. Throughout this MD&A reference will be made in the text and tables to "2022", which refers to the year ended December 31, 2022, and to "2021", which refers to the year ended December 31, 2021.

The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS) with comparative figures for the prior year. Certain comparative figures were reclassified to conform to the current year's presentation. The consolidated financial statements and the MD&A were reviewed by Pulse's Audit and Risk Committee and approved by Pulse's Board of Directors. All financial information is reported in Canadian dollars. This MD&A discusses matters which Pulse's management considers material. Management determines whether information is material based on whether it believes a reasonable investor's decision whether or not to buy, sell or hold shares in the Company would likely be influenced or changed if the information were omitted or misstated. Readers should also read the cautionary statement in "Forward-Looking Information".

OVERVIEW

ABOUT PULSE

Pulse is a market leader in the acquisition, marketing and licensing of two-dimensional (2D) and three-dimensional (3D) seismic data for the energy sector in Western Canada. Seismic data is used by oil and natural gas exploration and development companies to identify portions of geological formations that have the potential to hold hydrocarbons. Seismic data is utilized by those who require advanced geophysics to maximize the probability of project success and include companies exploring for non-traditional forms of energy such as lithium, companies developing carbon capture utilization and storage projects, and those exploring for helium. Seismic data is used in conjunction with well logging data, well core comparisons, geological mapping and surface outcrops to create a detailed map of the Earth's subsurface at various depths.

Pulse owns the largest licensable seismic data library in Canada, currently consisting of approximately 65,310 net square kilometres of 3D seismic and 829,207 net kilometres of 2D seismic. The library extensively covers the Western Canada Sedimentary Basin (WCSB), where most of Canada's oil and natural gas exploration and development occur.

Pulse calculates net kilometres of 2D data and net square kilometres of 3D data by multiplying the number of kilometres of seismic data in each 2D line and the number of square kilometres of seismic data in each individual 3D seismic dataset by Pulse's percentage of ownership in each.

SEISMIC DATA

Seismic data is an essential part of the oil and natural gas exploration and development process. Companies engaged in oil and natural gas exploration and development use seismic data to assist in exploring for and developing new reserves and in establishing the extent of existing reserves. To acquire seismic data, acoustical energy waves are transferred from an energy source at or near the surface of the Earth to the subsurface. The seismic waves reflect off various geological beds or strata in the Earth's subsurface. Sophisticated sensors and recording instruments at the surface collect the reflected waves and convert them to digital form. The data is subsequently processed and an image of the subsurface formations is created, providing explorationists with valuable insight into the potential of a particular area to yield oil or natural gas reserves, and assisting in the selection of drilling locations.

2D SEISMIC

2D seismic data is measured in linear kilometres and after processing provides a sectional illustration of geological formations directly below the line on which the data was acquired. 2D seismic can extend over a distance spanning many kilometres. Intersecting 2D lines can enable explorers to map large pools of oil and natural gas, but without the precision required for smaller or more complex targets. Exploration companies typically use 2D seismic to get a sense of the regional geology of an area they think is prospective for oil and natural gas. 2D seismic data continues to be used to generate regional leads and prospects in oil and natural gas exploration areas.

3D SEISMIC

3D seismic data is measured in square kilometres and after processing provides map-like overhead views as well as three-dimensional visualizations of the subsurface geology. 3D seismic data is shot in grids, generating a three-dimensional image of the subsurface. 3D seismic data enables a more precise definition of geologically complex targets, facilitating precise placement of oil and natural gas wells. 3D seismic is generally used to zero-in on a discrete area of geological interest initially identified with 2D seismic. 3D seismic data is particularly important for horizontal drilling, unconventional plays (such as shale gas and tight sands) and complex conventional drilling. Typical 3D seismic surveys cover an area anywhere from a few square kilometres to several hundred square kilometres.

MISSION AND STRATEGY

Pulse is a pure-play seismic data library company focused on the acquisition, marketing and licensing of seismic data to the western Canadian oil and natural gas and new energy sectors. The Company's business model is designed to generate a growing stream of cash flow by repeatedly licensing the data in its seismic data library to oil and natural gas companies and more recently to companies exploring for non-traditional forms of energy.

Pulse is working with partners to explore the use of sophisticated processing technologies that provide advanced interpretation and visualization of seismic data to reduce the geological and drilling risks in exploring for subsurface targets. The application of such technologies is intended to increase the attractiveness and range of uses of Pulse's seismic dataset for existing and potential new customers. These include companies in emerging energy-transition projects such as lithium, carbon capture and sequestration, and geothermal, as well as helium resource extraction and Pulse's traditional core focus of oil and natural gas development. The Company recently increased its in-house technical capability to support this initiative, which will not require material capital investment. Pulse is partnering with third parties to evaluate the range of potential applications with the intention to enhance its sales and marketing activities.

Current seismic processing and visualization software allows historical 2D and 3D data to be reprocessed and reinterpreted, thereby maintaining the technical usefulness and marketability of historical data and, through repeated licensing sales, generating recurring revenue. The Company is continuously seeking and evaluating opportunities to expand its data library by acquiring high-quality 2D and 3D datasets that cover some of western Canada's most prospective current exploration regions, are complementary to its current library, and are available at favourable valuations.

Pulse's strategy is to pursue growth opportunities that meet its financial and technical criteria while maintaining a low-cost structure.

ECONOMIC ENVIRONMENT AND SEISMIC INDUSTRY

Pulse has been successful throughout prior commodity price cycles, due to its low-cost structure, access to capital for funding growth initiatives and ability to generate a high level of shareholder free cash flow relative to revenue. Shareholder free cash flow is a non-GAAP measure that the Company considers important in evaluating its financial performance.

Pulse's success depends on its ability to provide seismic coverage over the geographical areas associated with certain geological development areas or "play types" that the exploration and development sector focuses on in a given period. Activity in various plays is driven by commodity prices, geological understanding, the economic application of available and improving technologies and the availability of oil and natural gas processing and transportation egress ("take-away") capacity at reasonable cost. Pulse has worked diligently through the years to enlarge its coverage.

The oil and natural gas exploration and development industry currently is mainly targeting natural gas reservoirs that are high in natural gas liquids and light crude oil, lying in unconventional shale and less-permeable or "tight" formations. 2D and 3D seismic data are important tools for these plays. 2D seismic data is used to map the regional faults in shale gas prospects and 3D seismic data is used to map the exact contours of variable reservoirs, as well as small-scale fractures in shale formations, to plan accurate paths for horizontal wells.

Pulse's business results depend to a large extent on the level of capital spending on exploration activities by oil and natural gas companies. A sustained increase or decrease in the price of natural gas or crude oil, therefore, which could have a material impact on exploration activities, could also materially affect the Company's revenue, financial position, results of operations, EBITDA and shareholder free cash flow. The relationship is not direct, however, and the Company has generated high revenue in periods of weak oil and natural gas prices and vice-versa.

CORPORATE UPDATE

On November 14, 2022, the Company received TSX approval for a normal course issuer bid (NCIB) to purchase up to 3,070,659 common shares from November 16, 2022 to November 15, 2023. Management believes that its common shares may from time to time be undervalued and that such purchases are in the interests of the Company and its shareholders. The NCIB is an integral part of Pulse's capital allocation strategy.

KEY PERFORMANCE INDICATORS

The key performance indicators used by Pulse's management to analyze business results are seismic data library sales, net earnings, EBITDA and shareholder free cash flow. The definitions, calculations and reconciliations of EBITDA and shareholder free cash flow to the nearest GAAP financial measures are provided in "Non-GAAP Financial Measures and Reconciliations".

Results for the key performance indicators for the three months and year ended December 31, 2022, with comparative figures for 2021, are set out in the following table:

	Three months ended December 31,			Years ended December 31,		
(thousands of dollars except per share data)	**2022**	2021	Variance	**2022**	2021	Variance
Data library sales	**2,411**	16,172	(13,761)	**9,345**	48,717	(39,372)
Other revenue	**28**	133	(105)	**225**	433	(208)
Total seismic revenue	**2,439**	16,305	(13,866)	**9,570**	49,150	(39,580)
Net earnings (loss)	**(1,948)**	8,158	(10,106)	**(7,907)**	21,514	(29,421)
Per share basic and diluted	**(0.04)**	0.15	(0.19)	**(0.15)**	0.40	(0.55)
Cash generated by operating activities	**761**	4,010	(3,249)	**11,992**	29,799	(17,807)
Per share basic and diluted	**0.01**	0.07	(0.06)	**0.22**	0.55	(0.33)
EBITDA	**467**	13,835	(13,368)	**2,035**	42,632	(40,597)
Per share basic and diluted	**0.01**	0.26	(0.25)	**0.04**	0.79	(0.75)
Shareholder free cash flow	**908**	10,828	(9,920)	**3,200**	32,082	(28,882)
Per share basic and diluted	**0.02**	0.20	(0.18)	**0.06**	0.60	(0.54)

In the year ended December 31, 2022, Pulse generated $9.6 million of revenue compared to $49.2 million in 2021. The decrease in 2022 data library sales from 2021 is the reason for the period-over-period decrease in all of the Company's key performance metrics. In 2022 the Company generated record-low data library sales, including only immaterial transaction-based sales. In contrast, in 2021 Pulse generated the second-highest annual seismic data library sales in its history after the record $64.0 million achieved in 2012.

For the three months ended December 31, 2022, Pulse generated $2.4 million of revenue compared to $16.3 million for the same period in 2021. The fourth quarter of 2021 included delivery of the remaining data from a $17.0 million deal signed in May 2021. At that time, the Company delivered $7.3 million of seismic data, with the remainder to be selected by the customer prior to April 15, 2022. In December 2021, the remaining data was delivered to the customer resulting in the recognition of an additional $9.7 million of seismic data sales revenue.

On January 16, 2023, the Company announced the signing of a $4.0 million seismic data licensing sales contract. The license is for 3D seismic data located in a liquids-rich fairway in West Central Alberta.

SEISMIC REVENUE FLUCTUATIONS

Revenue fluctuations are a normal part of the seismic data library business, and data library sales can vary significantly year-over-year.

Traditional data library sales can occur at any time. This is due to the nearly continual changes in oil and natural gas industry conditions.

Transaction-based sales can also occur at any time. This is due to corporate merger-and-acquisition, joint venture and asset disposition activity involving Pulse's customers, which is unpredictable.

OUTLOOK

With seismic data library sales of $6.1 million to date in 2023, equivalent to 66 percent of the sales achieved in all of 2022, and conditions in Western Canada's oil and natural gas industry extending the widespread improvement experienced in 2022, Pulse is cautiously optimistic about the year ahead. Areas of strength include buoyant global demand for fossil fuels, forecasts for continued growth in industry capital investment and field activities, and ongoing corporate profitability, along with expectations for corporate M&A activity essentially matching 2022 deal flow of $15.6 billion. These positive factors are dampened by continued geopolitical instability and a deteriorating regulatory environment at the Canadian federal level.

The marked rebound in mineral lease auctions ("land sale") to well over $300.0 million in 2022 appears to be extending into 2023, with land sales of $53.3 million to date this year, all in Alberta. It is also anticipated that British Columbia's more than

year-long freeze on mineral lease auctions may be lifted this year. Also, in November the Canadian Association of Energy Contractors issued an initial 2023 drilling forecast of 6,409 oil and natural wells across Western Canada, an increase of12 percent from 2022.

Industry analysts also foresee a potential shift among oil and natural gas producers from the 2021-2022 focus on strengthening balance sheets, paying down debt, buying back shares and maximizing dividends while allowing production to remain largely flat, to go-forward capital programs focused on increasing production and replacing depleted reserves through a combination of drilling and asset or corporate acquisitions. Initial private-sector forecasts for 2023 suggest further growth in capital spending of 5 percent this year over the approximately $21 billion invested in 2022.

Such trends would be favourable to both Pulse's traditional and transaction-based seismic data library sales. As always, the Company cautions that industry M&A transactions do not provide visibility as to the timing or value of associated demand for seismic data; accordingly, a transaction-based data library sale of any size can occur at any time. Pulse further cautions that there is no direct linkage between industry field conditions and demand for seismic data and, accordingly, visibility is innately poor as to future traditional sales.

The past year again demonstrated that Pulse's business model and financial management ably prepared the Company to weather a year of record-low sales, with a balance sheet and cost structure that enabled Pulse to continue generating positive EBITDA and shareholder free cash flow sufficient to maintain a quarterly dividend. Pulse's key strengths include zero debt, a low-cost structure, high leverage in the EBITDA margin to increased revenue, no capital spending commitments, Canada's largest licensable seismic data library and strong customer relations. Pulse entered 2023 well-positioned to benefit from a rebound in sales.

Given the past several years' volatility in seismic data library sales, the Company remains focused on the business practices that have enabled the Company to navigate and thrive through the full range of conditions: maintaining a strong balance sheet with access to credit on favourable terms, careful management of cash resources including distributing cash to shareholders when prudent, a low cost structure, a disciplined and rigorous approach to growth opportunities, an experienced and capable management team, and excellent customer care complemented by the current initiative to enhance the attractiveness of the seismic data library for broader application in both traditional and energy transition related exploration and development.

Discussion of Operating Results

SUMMARY FOR THE YEAR ENDED DECEMBER 31, 2022

EARNINGS (LOSS) BEFORE INCOME TAXES

Pulse generated a net loss before income taxes of $8.1 million ($0.15 per share basic and diluted) in 2022 compared to earnings before income taxes of $30.2 million ($0.56 per share basic and diluted) for 2021.

DATA LIBRARY SALES

Data library sales are conducted under various types of sale contracts. These are classified as data library sales, library cards (discount agreement, paid on predetermined payment terms with periods of up to one year to select data), commitment cards (discount agreement, paid when data is selected and delivered within a one-year period) and review-and-possession agreements (client is provided with data to review and selects a portion of this data to license long-term, with the agreement often having set payment terms). Pulse plans to continue providing customers with a variety of contract options in order to maximize future data library sales. The unearned portion of a contract's value is deferred until Pulse's revenue recognition criteria are met, with data library sales revenue being recognized upon delivery of seismic data to the customer.

Data library sales consist of traditional sales and transaction-based sales. There are three main types of transaction-based sale: corporate merger or acquisition sales, partnership or joint venture sales, and asset disposition-related sales. For further information on transaction-based sales, see "Traditional Sales vs. Transaction-based Sales: Ten-Year History".

In 2022, seismic data library sales were $9.3 million compared to $48.7 million in 2021. In 2022, the Company generated only $233,000 of transaction-based data library sales compared to $35.8 million in 2021. The Company also generated $9.1 million of traditional data library sales, compared to $12.9 million in 2021.

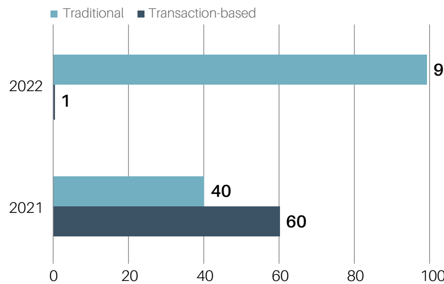
The year-over-year decrease in data library sales is due to lower than expected amount of merger-and-acquisition activity.

DISAGGREGATED DATA LIBRARY SALES BREAKDOWN

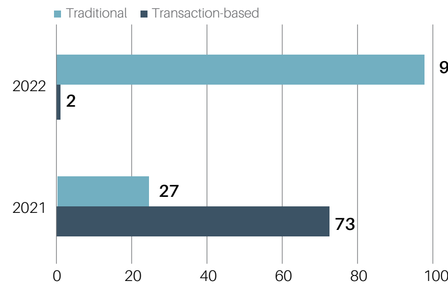
Pulse uses three ways to disaggregate its data library sales. The following graphs illustrate the comparative disaggregated sales for the three- and twelve-month periods ended December 31, 2022 and 2021.

The first breakdown, transaction type, separates sales between traditional and transaction-based sales. These two types fluctuate greatly from period to period and year to year. A ten-year historical breakdown is provided in "Traditional Sales vs. Transaction-Based Sales: Ten-Year History".

DISAGGREGATED SALES
TRADITIONAL/TRANSACTION-BASED SALES (%)
Three months ended December 31

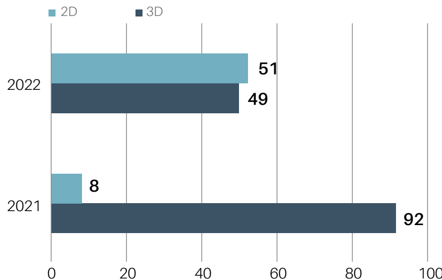


DISAGGREGATED SALES
TRADITIONAL/TRANSACTION-BASED SALES (%)
Years ended December 31

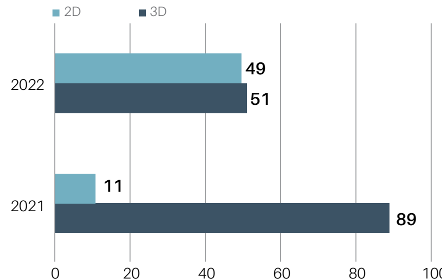


The second breakdown, data type, compares sales of 2D and 3D seismic data. As 3D seismic licence contracts are generally larger than 2D seismic licence contracts, the percentage of seismic data library revenues generated from 2D and 3D seismic data can fluctuate significantly depending on the number of 3D seismic sale contracts signed during a given period.

DISAGGREGATED SALES 2D/3D (%)
Three months ended December 31

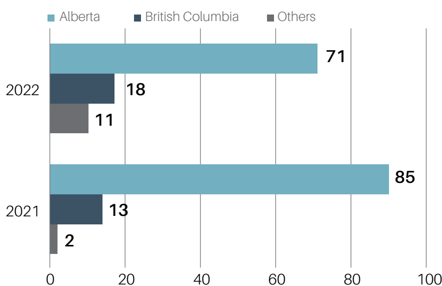


DISAGGREGATED SALES 2D/3D (%)
Years ended December 31

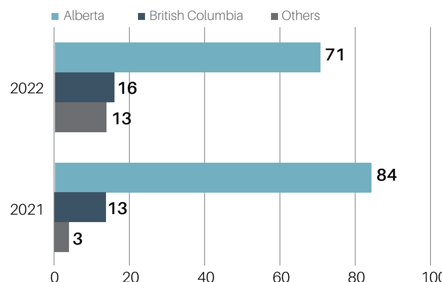


The third breakdown is geographical. The largest proportion of data sales usually comes from data in Alberta, as that is where the majority of Pulse's data coverage and current industry activity are.

DISAGGREGATED SALES
GEOGRAPHICAL (%)
Three months ended December 31



DISAGGREGATED SALES
GEOGRAPHICAL (%)
Years ended December 31



The Company's customers are currently and generally focusing on liquids-rich natural gas and light oil pools found primarily in a broad corridor running from northwest of Calgary, Alberta, along the Foothills of the Rocky Mountains to the British Columbia border, as compared to "dry" natural gas more often found in British Columbia, on Alberta's eastern prairies and in Saskatchewan and Manitoba. During the year ended December 31, 2022, 71 percent (2021 – 84 percent) of the data library sales were from data located in Alberta, 16 percent from British Columbia (2021 – 13 percent) and 13 percent from other areas (2021 – 3 percent).

AMORTIZATION OF SEISMIC DATA LIBRARY

Seismic data library amortization expense was $9.8 million for 2022 compared to $10.0 million in 2021.

Amortization of the seismic data library is described further under "Critical Accounting Estimates".

IMPAIRMENT

At December 31, 2022, the Company assessed the cash-generating units (CGUs) in its seismic data library for indicators of impairment, as required under IFRS, and concluded there were no indicators at December 31, 2022 and that, accordingly, no impairment test was required.

SALARIES, COMMISSIONS AND BENEFITS (SCB)

SCB includes salaries, related benefits, incentive compensation and internal commissions. For 2022, SCB was $4.5 million compared to $4.6 million in 2021.

Salaries and benefits were higher in 2022 than in 2021 because of one additional full-time employee on the payroll in 2022 and the salary increase implemented at the beginning of the year. Also, in 2021 the Company benefited from the Canada Emergency Wage Subsidy (CEWS) in the amount of $312,000, which was recorded as a reduction of SCB in 2021.

In addition, the long-term incentive plan (LTIP) expense was higher in 2022 than in 2021. The estimate of units that will vest over the next three years is based on revised assumptions and minimum performance parameters.

The increase in salaries, benefits and LTIP expense was slightly more than offset by the decrease in sales commissions and lower short-term incentive plan (STIP) expense due to lower data library sales in 2022.

OTHER SELLING, GENERAL AND ADMINISTRATIVE COSTS (SG&A)

SG&A includes external commissions, occupancy costs, office and general costs, information technology expenses, reprocessing, data storage expenses, directors' fees and corporate costs, consulting fees and professional fees. For 2022, SG&A was $3.1 million, an increase of $1.2 million from $1.9 million in 2021. The increase was mainly related to rent expense, hardware and software maintenance, the cost of physical data destruction following the completion of the digitization project and a bad debt expense of $295,000.

The bad debt expense is related to one overdue account. Management believes that this account represents a collection risk and has recorded an allowance for impairment for the full balance of the account.

In 2021 the Company benefited from the Canada Emergency Rent Subsidy (CERS) in the amount of $315,000, which was recorded as a reduction of SCB.

Also included in SG&A are the restructuring costs related to the acquisition of Seitel Canada Ltd. (Seitel) in 2019. Restructuring costs for 2022 were $813,000 compared to $86,000 for 2021. The restructuring costs include expenses of the warehouse lease and the former Seitel office premises, including costs relayed to the termination of these leases.

These additional costs were categorized as restructuring costs and make up part of the expected $4.2 million in future liabilities as outlined in acquisition-related disclosure. Pulse expensed the remaining restructuring costs in 2022, as the warehouse lease ended in April 2022 and the office lease ended in November 2022.

NET FINANCING COSTS

In 2022 the Company's net financing costs were $95,000 compared to $1.8 million in 2021. The net financing costs mainly include the interest expense and standby fees related to the Company's revolving credit facility, and for 2021 also included the interest expense related to Pulse's subordinated debt.

In the first half of 2021, Pulse had a subordinated debt agreement with EdgePoint Investment Group Inc., a non-arm's-length party, for $10 million at an interest rate of 10 percent. At the end of June 2021, the Company repaid this amount in full. In January 2022, the Company also repaid the balance on its revolving credit facility.

Also included in financing expenses is the interest related to lease liabilities as per IFRS 16.

INCOME TAXES

The income tax recovery in 2022 was $228,000 compared to an income tax expense of $8.7 million in 2021. The main factor affecting the tax rate calculation in both years is the permanent difference between the tax basis and the accounting value of the seismic data library acquired in 2019. The average combined income tax rate for 2022 and 2021 was 23 percent. A reconciliation of the income tax expense or reduction is included in the consolidated financial statements.

The effective tax rate for accounting in 2022 and 2021 was different from the enacted income tax rate as a result of the permanent difference between the tax basis of the data library and its cost. The main difference affecting the tax rate calculation in both years is the permanent difference between the tax basis and the accounting value of the seismic data library acquired in 2019. The change in valuation allowance related to future resource deductions and non-deductible expenditures also contributed slightly to the variance between the effective and the enacted income tax rate.

SUMMARY FOR THE THREE MONTHS ENDED DECEMBER 31, 2022

EARNINGS (LOSS) BEFORE INCOME TAXES

For the three months ended December 31, 2022, the Company incurred a net loss before income taxes of $2.0 million ($0.04 per share basic and diluted) compared to net earnings of $11.1 million ($0.21 per share basic and diluted) for the comparable period of 2021.

REVENUE

Total revenue for the three months ended December 31, 2022 was $2.4 million compared to $16.3 million for the three months ended December 31, 2021.

The fourth quarter of 2021 included delivery of the remaining data from a $17.0 million deal signed in May. At that time, the Company delivered $7.3 million of seismic data, with the remainder to be selected by the customer prior to April 15, 2022. In December 2021, the remaining data was delivered to the customer resulting in the recognition of an additional $9.7 million of seismic data sales revenue.

AMORTIZATION OF SEISMIC DATA LIBRARY

For the three months ended December 31, 2022 seismic data library amortization expense was $2.4 million compared to $2.5 million for the same period in 2021.

Amortization of the seismic data library is described further under "Critical Accounting Estimates".

SALARIES, COMMISSIONS AND BENEFITS (SCB)

SCB for the three months ended December 31, 2022 was $1.1 million compared to $1.8 million in the comparable period of 2021. The significant decrease is mainly explained by a lower year-end STIP accrual for 2022, as data library sales in 2022 did not result in a payout of the STIP corporate performance pool.

OTHER SELLING, GENERAL AND ADMINISTRATIVE COSTS (SG&A)

SG&A for the three months ended December 31, 2022 was $866,000 compared to $642,000 for the three months ended December 31, 2021. The increase was mainly due to the bad debt expense mentioned above, an increase in hardware and software maintenance and the expense for destruction of physical data upon completion of the digitization project.

NET FINANCING COSTS (INCOME)

For the three months ended December 31, 2022, net financing income was $9,000 compared to net financing costs of $75,000 for the same period in 2021. The decrease is due to the interest earned by the Company on the investment of cash surplus in term deposits and no long-term debt balance during the fourth quarter of 2022.

INCOME TAXES

The income tax recovery for the three months ended December 31, 2022 was $19,000 compared to an income tax expense of $3.0 million for the fourth quarter of 2021. The main factors affecting the tax expense is the net loss before income taxes from lower sales in the fourth quarter of 2022 compared to the same period in 2021 and the permanent difference between the tax basis and the accounting value of the data library acquired in January 2019.

Review of Financial Position

AS AT DECEMBER 31, 2022

TRADE AND OTHER RECEIVABLES

Trade and other receivables at December 31, 2022 totalled $1.1 million compared to $15.0 million at December 31, 2021.

The higher data library sales in the fourth quarter of 2021 and the subsequent collection of accounts receivable explain the decrease in trade and other receivables.

As discussed above, Management has recorded an allowance for the impairment of accounts receivable in the amount of $295,000 as of December 31, 2022.

CURRENT TAX ASSETS

Included in current tax assets is the current tax expense for 2022 less the 2022 tax installments.

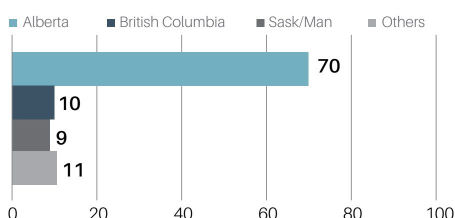
SEISMIC DATA LIBRARY

Historically, Pulse has acquired seismic data to add to its library through two main methods. The Company purchases proprietary rights to complementary seismic datasets when it finds appropriate opportunities, and it also has conducted participation surveys whereby Pulse partners with customers on participation surveys from which the seismic data collected is added to Pulse's data library to generate future licensing revenue. Pulse has not conducted a participation survey since 2015 but has grown significantly during this time through acquisitions.

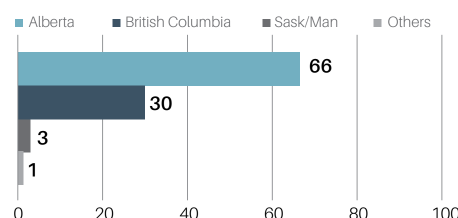
At December 31, 2022, the Company considered indicators of impairment for each of its CGUs and, based on that review, no impairment test was performed. The last impairment test was performed at March 31, 2020 and no impairment loss was recognized.

The breakdown of Pulse's 2D and 3D seismic data by geographical location is as shown in the following graphs.

2D OWNERSHIP



3D OWNERSHIP



RIGHT-OF-USE (ROU) ASSETS

Included in the ROU assets are the present values of the basic rent related to Pulse's office lease agreement. The present values were calculated using an incremental borrowing rate of 6.7 percent. The operating costs associated with the lease agreements were not included as those costs are not fixed or based on an index or rate. The office lease agreement terminates in March 2023.

On October 20, 2022 the Company entered into a lease agreement for office space for the period of April 2023 to June 2028. The ROU assets will be recognized on April 1, 2023.

During 2022, until the lease ended in April, the ROU assets also included the Seitel warehouse lease.

No fair value was allocated to the ROU asset related to the former Seitel office space. This office was not required for business by Pulse. The office lease agreement terminated in November 2022. In the third quarter of 2019 a sub-lease for the remainder of the term of the acquired office space was finalized, which led to a recovery of a portion of the monthly lease operating costs.

LONG-TERM DEBT

In January 2019 Pulse partially funded the acquisition of Seitel with a combination of debt from its syndicated credit facility and subordinated debt of $10.0 million. In June 2021 the Company repaid the $10.0 million subordinated debt using cash on hand and a portion of its senior credit facility.

On December 21, 2021, the Company renewed its revolving credit facility and extended the maturity date for two years to January 15, 2025. The facility's available borrowing amount remains at $25.0 million and all other major terms, including financial covenants, also remained the same.

In January 2022, following the collection of the December 31, 2021 accounts receivable, the Company repaid the balance of its revolving credit facility.

The long-term debt is usually offset by deferred financing charges which are amortized over three years.

When the Company does not carry a balance on its revolving credit facility, the deferred financing costs are included in the non-current assets. The balance of the deferred financing costs was $42,000 at December 31, 2022.

LEASE LIABILITIES

Included in lease liabilities are the present values of the basic rent related to Pulse's office lease agreement, the lease agreement for Seitel's former office space and the warehouse lease agreement, all calculated using an incremental borrowing rate of 6.7 percent. The operating costs included in the lease agreements were not included in the lease liabilities as these costs are not fixed or based on an index or rate. At the end of 2022 only the Pulse office lease liability remained.

On October 20, 2022 the Company entered into a lease agreement for office space for the period of April 2023 to June 2028. The lease liabilities will be recognized on April 1, 2023.

OTHER LONG-TERM PAYABLE

Included in the other long-term payable is the long-term portion of the cash-settled liability related to the LTIP.

SHARE CAPITAL SUMMARY

The Company's authorized share capital consists of an unlimited number of common shares and an unlimited number of preferred shares, issuable in series.

The following table provides details of the Company's outstanding share capital:

	Three months ended December 31,		Years ended December 31,	
	2022	2021	**2022**	2021
Weighted average shares outstanding: Basic and diluted	**53,633,862**	53,791,997	**53,703,039**	53,792,984
Shares outstanding at period-end			**53,626,869**	53,784,717
Shares outstanding at February 16, 2023			**53,618,469**	

DILUTED EARNINGS PER SHARE RECONCILIATION

The Company does not have any dilutive securities.

LONG-TERM INCENTIVE PLAN (LTIP)

The Company has an LTIP for employees, officers and Directors designed to align the Company's long-term incentive compensation with its performance and to increase levels of stock ownership. Participants are granted restricted share units (RSUs) and performance share units (PSUs). LTIP awards are at the discretion of the Board of Directors.

RSUs and PSUs have accompanying dividend-equivalent rights and, therefore, additional RSUs and PSUs are issued to reflect dividends declared on the common shares. The plan's trustee will purchase common shares on the open market for the after-tax number of RSUs and PSUs vested with funds provided by the Company.

On March 31, 2022, 200,896 RSUs and 258,509 PSUs were eligible to vest. The Company's performance in 2021 met the predetermined minimum performance benchmarks and, consequently, 9.5 percent or 24,540 PSUs vested on March 31, 2022. RSUs vest automatically based upon time and, consequently, all of the eligible RSUs vested automatically on March 31, 2022.

To satisfy its obligation, in April 2022 the Company provided $310,000 to the plan's trustee to purchase common shares on the open market for the total after-tax number of cash- and equity-settled RSUs that vested on March 31, 2022. The related payroll taxes of $219,000 were paid in the second quarter to settle the accrued cash-settled portion of the share-based payment liabilities.

On March 31, 2022, a special one-time RSU award was granted to each employee. One-third of these RSUs will be eligible to vest automatically each year on March 31, 2023, 2024 and 2025. The Board of Directors, upon recommendation from the Board's Compensation Committee, approved this award because it believes that 2021 financial performance should have resulted in maximum vesting of the PSUs based on 2021 performance, whereas the parameters of the plan resulted in only 9.5 percent of the PSUs vesting. In this case the Board of Directors used its discretion as per the LTIP policy terms.

At December 31, 2022 there were 1,214,575 RSUs and 1,209,149 PSUs outstanding.

At February 16, 2023, total RSUs and PSUs outstanding remain unchanged. On March 31, 2023, a portion of the LTIP awards, RSUs and PSUs, will be eligible to vest. The Company's performance in 2022 didn't meet the predetermined performance criteria and, consequently, no PSUs units will vest on March 31, 2023. RSUs vest automatically based upon time; all of the eligible RSUs or 448,047 units will, therefore, vest automatically on March 31, 2023.

In April 2023, the Company will settle its obligation to deliver the common shares by providing funds to the independent LTIP trustee to purchase the shares on the open market.

DEFICIT

On December 31, 2022 the Company had a deficit of $43.8 million, compared to $33.1 million at December 31, 2021. The net loss for the year of $7.9 million, the dividends paid of $2.7 million and a reduction of $90,000 due to the required accounting treatment of the Company purchasing and cancelling its common shares contributed to the deficit increase. The purchasing and cancelling common shares adjustment relates to the difference between the price paid by the Company for the shares purchased and cancelled under the NCIB and the average historical cost of the Company's shares. The average historical cost of the shares purchased and cancelled was recorded as a reduction to share capital.

DIVIDENDS

On February 17, 2022, the Company approved a quarterly dividend of $0.0125 per share. The dividend totalling $672,000 was paid on March 21, 2022 to shareholders of record at the close of business on March 14, 2022.

On April 20, 2022, the Company approved a quarterly dividend of $0.0125 per share. The dividend totalling $672,000 was paid on May 24, 2022 to shareholders of record at the close of business on May 16, 2022.

On July 20, 2022, the Company approved a quarterly dividend of $0.0125 per share. The dividend totalling $672,000 was paid on August 23, 2022 to shareholders of record at the close of business on August 15, 2022.

On October 25, 2022, the Company approved a quarterly dividend of $0.0125 per share. The dividend totalling $670,000 was paid on November 22, 2022 to shareholders of record at the close of business on November 14, 2022.

On February 16, 2023, the Company declared a quarterly dividend of $0.0125 per share. The dividend totalling $670,000 will be paid on March 20, 2023 to shareholders of record at the close of business on March 13, 2023.

Pulse confirms that all dividends paid to shareholders in 2022 are designated as "eligible dividends" entitling Canadian resident individuals to a higher gross-up and dividend tax credit. For non-resident shareholders, Pulse's dividends are subject to Canadian withholding tax.

DEFERRED TAX LIABILITY

The net deferred income tax liability was $264,000 at December 31, 2022 compared to $572,000 at December 31, 2021. The decrease in the deferred income tax liability is mainly due to the decrease in the difference between the tax base of the seismic data library and the carrying amount on the statement of financial position.

The deferred income tax liability consists mainly of taxable temporary differences between the tax base of the seismic data library and the carrying amount on the statement of financial position.

FINANCIAL SUMMARY OF QUARTERLY RESULTS

	2022				2021			
(thousands of dollars, except per share data)	**Q4**	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Traditional data library sales	**2,395**	2,050	3,018	1,649	6,390	1,863	4,136	553
Transaction-based data library sales	**16**	113	10	94	9,782	6,969	14,837	4,187
Total data library sales	**2,411**	2,163	3,028	1,743	16,172	8,832	18,973	4,740
Other revenue	**28**	15	69	113	133	100	115	85
Total revenue	**2,439**	2,178	3,097	1,856	16,305	8,932	19,088	4,825
Amortization of seismic data library	**2,416**	2,444	2,443	2,515	2,500	2,509	2,503	2,498
Net earnings (loss)	**(1,948)**	(1,675)	(1,766)	(2,518)	8,158	3,164	10,159	33
Per share — basic and diluted	**(0.04)**	(0.03)	(0.03)	(0.05)	0.15	0.06	0.19	0.00

The revenue streams generated by Pulse's operations are data library sales and other revenue. Other revenue includes revenue from client services consisting of copy and reproduction charges, as well as third-party data storage fees collected for space in the leased warehouse.

Data library sales consist of traditional sales and transaction-based sales, as described below under "Traditional Sales vs. Transaction-Based Sales: Ten-Year History". See also "Seismic Revenue Fluctuations".

During the last eight quarters, transaction-based sales contributed to data library sales to varying degrees. The fourth quarter of 2021 included $9.8 million in transaction-based sales. The third quarter of 2021 included $7.0 million in transaction-based sales. The second quarter of 2021 included $14.8 million in transaction-based sales. The first quarter of 2021 included $4.2 million in transaction-based sales.

Very little transaction-based sales revenue was generated in 2022.

As amortization is a non-cash expense, the Company continued to generate EBITDA and shareholder free cash flow in each quarter.

During the past eight quarters, the fluctuations in net earnings or loss have largely been a function of the corresponding quarterly fluctuations in revenue. As stated above, 2022 was a record-low data library sales year for the Company and 2021 delivered the second-highest annual seismic data library sales in Pulse's history.

YE 2022

SELECTED ANNUAL FINANCIAL INFORMATION

	Years ended December 31,		
(thousands of dollars, except per share data)	**2022**	2021	2020
Data library sales	**9,345**	48,717	11,011
Other revenue	**225**	433	338
Total revenue	**9,570**	49,150	11,349
Net earnings (loss)	**(7,907)**	21,514	(6,786)
Per share — basic and diluted	**(0.15)**	0.40	(0.13)
Total assets	**35,222**	52,899	56,742
Long-term debt	—	2,265	27,715
Total non-current financial liabilities	**581**	3,114	29,302

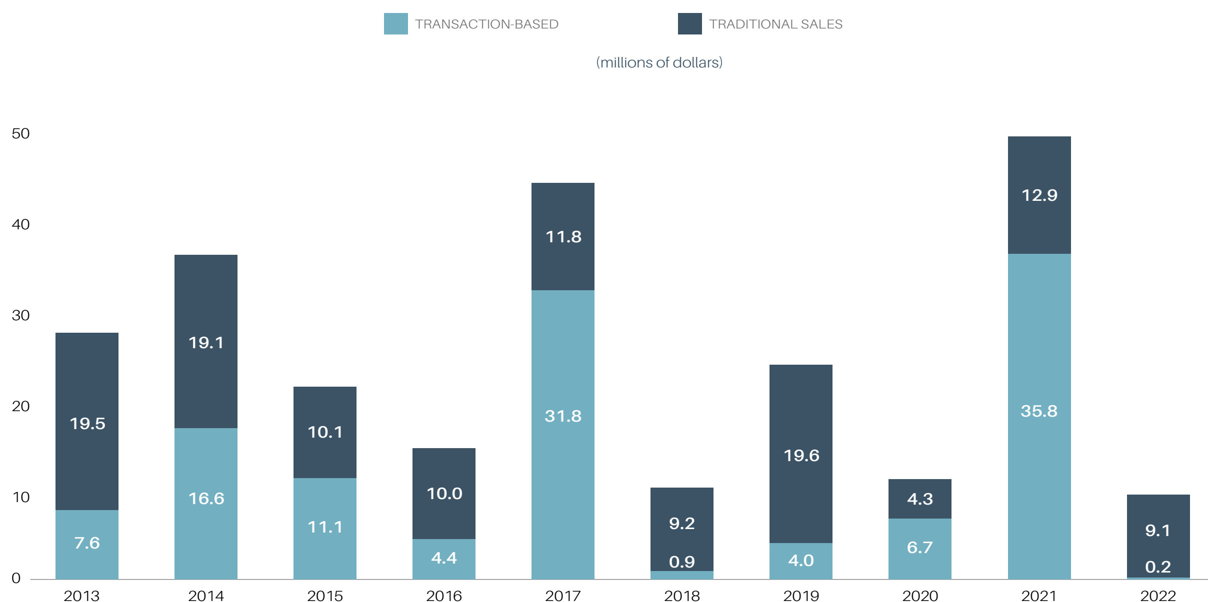
For the last three years, total revenue consisted of seismic data library sales and other revenue. In 2020, seismic data library sales were low due to the pandemic and drastic cutbacks in the energy-producing sector's capital spending. Seismic data library sales rebounded strongly in 2021, becoming the second-highest annual total in Pulse's history. In 2022 sales were lower than the historical average despite overall favourable industry conditions, including increasing field activity by the oil and natural gas industry.

The Company had net losses in 2022 and 2020, due primarily to low data library sales and high amortization expense.

See also "Seismic Revenue Fluctuations".

Total assets decreased from 2020 to 2022 due to amortization of the seismic data library.

TRADITIONAL SALES VS.TRANSACTION-BASED SALES: TEN-YEAR HISTORY



There are three main types of transaction-based sale. The first is the partnership or joint venture, in which an oil and natural gas asset holder elects to pool its expertise, capital and/or assets with one or more new participants to explore or develop a play. Under the Company's current standard-form licensing agreements, any new technical or operational participant that wishes to view or interpret the seismic data must purchase a data licence from Pulse, generally at a discount (usually pre-defined in the initial licensing agreement). Purely financial partners that do not wish to view or interpret the seismic information are exempt.

The second kind of transaction-based sale is a corporate merger or acquisition. In this case, the seismic data is transferred to the new organization. Under the Company's current standard-form licensing agreements, the buyer has 30 days to determine whether it would like to pay a change-of-control fee to keep the data or return the data to Pulse.

The third is the sale of an oil and gas asset or group of assets (as well as partial mineral rights to particular zones below the asset-owner's lands). Under the Company's current standard-form licensing agreements, the licence is not transferable upon an asset sale. In this case, no rights to the seismic data transfer to the buyer, and there are no terms of payment in the licence agreement. Should the buyer be interested in Pulse's seismic data, it must license the data from Pulse at the regular price. Following this type of transaction, considerable time may pass until a data licensing sale occurs because the new asset owner may defer development of the particular asset. In addition, the new asset owner may be interested in only portions of the original dataset. The attraction of Pulse's library remains the far lower cost of licensing the data than shooting new seismic over the same area.

The precise terms of individual licence agreements (including those historically used by Pulse and its predecessors and those assumed by Pulse on data acquisitions) can vary greatly. Change-of-control fees and joint venture copy fees may not always be payable, and licence agreements may not always be non-assignable.

CONTRACTUAL OBLIGATIONS

Pulse's known contractual obligations at December 31, 2022 are comprised of leases for an office space, minimum payments under seismic data services contracts and accounts payable and accrued liabilities. The following table reflects the Company's anticipated payment of contractual obligations:

		Payments due by period			
Contractual Obligations (thousands of dollars)	Total	Less than 1 year	1 – 3 years	4 – 5 years	After 5 years
Lease liabilities	1,567	270	599	590	108
Seismic data services contracts	168	168	—	—	—
Accounts payable and accrued liabilities	1,394	1,077	317	—	—
Total contractual obligations	3,129	1,515	916	590	108

Obligations in the category of seismic data services contracts are for physical seismic data storage.

Accounts payable and accrued liabilities at December 31, 2022 include the interest and standby fee accrual of $10,000 related to the long-term debt, the accrual of $292,000 related to the STIP and the accrual of $312,000 related to the LTIP.

LIQUIDITY, CAPITAL RESOURCES AND CAPITAL REQUIREMENTS

At December 31, 2022 Pulse had working capital of $6.6 million and a working capital ratio of 6.8:1.

In 2022 the Company generated $12.0 million of cash from operating activities compared to $29.8 million for the same period in 2021. The main differences between the two periods relate to lower data library sales offset by lower income tax paid during the year and higher net change in non-cash working capital.

The Company also utilized cash for the following outlays:

- Long-term debt repayments of $2.4 million;
- Settlement of equity share-based payment of $310,000;
- Purchase and cancellation of 157,848 common shares through its NCIB for a total of $309,000 (at an average price of $1.96 per common share including commissions);
- Dividends paid of $2.7 million;
- Property and equipment of $12,000; and
- Capital lease principal repayments of $479,000.

Significant terms of the current credit facility are:

- Interest is based on prime rate plus 0.75 percent to 4.25 percent following a ten-tier margin structure based on the Company's long-term debt to adjusted EBITDA ratio as described below;
- Standby fee is based on the daily undrawn balance of the credit facility and the Company's long-term debt to adjusted EBITDA ratio following a ten-tier margin structure;
- Three-year term until January 15, 2025, with an extension of up to one year available on January 15 of every year with the approval of the lender. If the extension is not granted, any outstanding amounts will be payable on the then-current applicable maturity date; and
- Security through a charge on all of the assets of the Company and its material subsidiaries.

At December 31, 2022 the Company had a nil balance on the revolving credit facility and the applicable interest rate was 7.2 percent (December 31, 2021 – 3.2 percent).

The credit facility also includes the following two financial covenants:

1) MAXIMUM LONG-TERM DEBT TO ADJUSTED EBITDA RATIO

The long-term debt is determined on a consolidated basis and in accordance with IFRS.

Adjusted EBITDA is to be calculated on a trailing 12-month basis and is defined as earnings or loss before interest, income taxes, depreciation and amortization, plus extraordinary losses, non-cash losses and expense charges, and any other unusual or non-recurring cash charges, expenses or losses consented to by the lenders, less participation survey revenue, lease payments treated as capital lease, warehouse storage fees, extraordinary gains and non-cash gains and income. Adjusted EBITDA is to be adjusted for acquisitions or dispositions to reflect such acquisition or disposition as if it occurred on the first day of such calculation period.

The long-term debt to adjusted EBITDA ratio shall not be greater than 3.0:1 on December 31, 2022 and thereafter.

At December 31, 2022 there was no long-term debt outstanding; therefore, the long-term debt to adjusted EBITDA ratio was 0.00:1.

2) INTEREST COVERAGE RATIO

The interest coverage ratio is defined as the ratio of adjusted EBITDA to interest expense.

The minimum interest coverage ratio shall not be less than 2.5:1 at December 31, 2022 and thereafter.

At December 31, 2022 the interest coverage ratio was 17.4:1.

The interest coverage ratio related to the financial covenant at December 31, 2022 was calculated as follows:

Interest Coverage Ratio (ICR)
(thousands of dollars except ratio)

Adjusted EBITDA	3,227
Divided by:	
Interest expense	186
ICR (to be at least 2.5:1)	**17.4:1**

The Company was therefore in compliance with the credit facility's covenants at December 31, 2022.

The Company pays interest and a standby fee based on the daily undrawn balance of the credit facility and its long-term debt to adjusted EBITDA ratio. Interest and standby fees on the revolving facility are calculated based on the lender's prime rate, bankers' acceptance rate or LIBOR, plus an applicable margin based on the covenant ratio of total debt to adjusted EBITDA. The long-term debt (before deferred financing charges) to adjusted EBITDA ratio at December 31, 2022 was 0.00:1 and the applicable margin and standby fee will be set at the first-level rates specified in the facility.

The interest and standby fee rates are adjusted the day after the covenant's calculation for the previous fiscal quarter is received and approved by the lender.

The applicable margin and standby fee rate were determined as follows:

Total Debt to Adjusted EBITDA Ratio	Applicable Margin for Canadian Prime Rate Loans	Applicable Margin for Bankers' Acceptances	Standby Fee Rate
Less than or equal to 1:1	0.75%	2.25%	0.45000%
Greater than 1:1 but less than or equal to 1.5:1	1.00%	2.50%	0.50000%
Greater than 1.5:1 but less than or equal to 2:1	1.25%	2.75%	0.55000%
Greater than 2:1 but less than or equal to 2.5:1	1.50%	3.00%	0.67500%
Greater than 2.5:1 but less than or equal to 3:1	1.75%	3.25%	0.73125%
Greater than 3:1 but less than or equal to 3.5:1	2.25%	3.75%	0.93750%
Greater than 3.5:1 but less than or equal to 4:1	2.75%	4.25%	1.06250%
Greater than 3.5:1 but less than or equal to 4:5:1	3.25%	4.75%	1.18750%
Greater than 3.5:1 but less than or equal to 5:1	3.75%	5.25%	1.31250%
Greater than 5:1	4.25%	5.75%	1.43750%

Toronto Stock Exchange (TSX) rules determine the number of shares the Company is permitted to purchase through its NCIB.

On November 14, 2022, the Company received TSX approval for its application to renew its NCIB. The Company could purchase, for cancellation, up to a maximum of 3,070,659 common shares, equal to 10 percent of the public float of 30,706,598 common shares as at November 10, 2022. The Company is limited under the NCIB to purchasing up to 4,248 common shares in any one day, subject to the block purchase exemption under TSX rules. The NCIB will continue until November 15, 2023. Purchases will be made on the open market through the TSX or alternative trading platforms at the market price of such shares. All shares purchased under the NCIB will be cancelled.

From November 16, 2022 to December 31, 2022, the Company purchased 7,448 common shares under the NCIB. Under the previous NCIB from November 2, 2021 to November 1, 2022 the Company purchased 159,000 common shares under the NCIB. All purchases were made on the open market through the TSX or alternative trading platforms at the market price of such shares. All shares purchased under the NCIB were cancelled.

Funding for Pulse's future capital expenditures will generally depend on the level of future data library sales. Pulse's management believes that the Company's capital resources will be sufficient to finance future operations and carry out the necessary capital expenditures through 2023. The Company anticipates that future capital expenditures will be financed through the available credit facility and funds from operations. At year-end 2022 (as well as at the date of this MD&A) the Company had a $25.0 million revolving credit facility fully undrawn. If deemed appropriate by management and the Board of Directors, Pulse can also issue common or preferred shares.

Pulse requires flexibility in managing its capital structure to take advantage of opportunities for raising additional capital to finance opportune seismic data acquisitions. Historically, the Company has used a combination of debt and equity to finance growth initiatives, and it continues to rely on internal measures such as the long-term debt to equity ratio to structure and forecast its capital requirements. Pulse's management considers the current capital structure appropriate.

This discussion on liquidity, capital resources and capital requirements contains forward-looking information; users of this information are cautioned that actual results may vary and are encouraged to review the discussions of risk factors and forward-looking statements below.

NON-CAPITAL RESOURCES

The Company's main non-capital resource is its key management and staff. The Company has an experienced team with extensive knowledge about the seismic industry. Pulse's management understands industry cycles and how to manage the business in the downturn and recovery phases. Pulse has built strong sales, financial and IT departments. Key management and staff are eligible to participate in the STIP and LTIP, which are tied to the Company's shareholder free cash flow per share.

NON-GAAP FINANCIAL MEASURES AND RECONCILIATIONS

This MD&A and the Company's continuous disclosure documents provide discussion and analysis of EBITDA and shareholder free cash flow. IFRS do not include standard definitions for these measures and, therefore, may not be comparable to similar measures used and disclosed by other companies. As IFRS have been incorporated into Canadian generally accepted accounting principles (GAAP), these non-IFRS measures are also non-GAAP measures. The Company has included these non-GAAP financial measures because management, investors, analysts and others use them to evaluate the Company's financial performance.

EBITDA and shareholder free cash flow are not calculated based on IFRS and should not be considered in isolation or as a substitute for IFRS performance measures, nor should they be used as an exclusive measure of cash flow, because they do not consider working capital changes, capital expenditures, long-term debt repayments and other sources and uses of cash which are disclosed in the consolidated audited and interim statements of cash flows.

Until the fourth quarter of 2021, the Company had used cash EBITDA instead of EBITDA as a non-GAAP measure. Cash EBITDA is less relevant than it was in earlier years for Pulse, as the main difference between it and EBITDA was that participation survey revenue was deducted, to acknowledge that this revenue was already allocated to cover the cost of the related seismic data acquisition. Pulse has not conducted a survey since 2015 and therefore has not had such revenue deductions, in turn rendering cash EBITDA very little different from EBITDA in most years. Other non-cash and non-recurring items were also deducted in the cash EBITDA calculation, one item being the non-cash portion of the LTIP expense and, since the acquisition of Seitel in 2019, the associated restructuring costs. These were highest in 2019 and will be completed this year with the end of the building leases that came with the corporate acquisition.

The following table shows the difference between cash EBITDA and EBITDA for the five years from 2017 to 2021. The non-cash and non-recurring expenses that were previously adjusted in the cash EBITDA calculation are now adjusted in the calculation of shareholder free cash flow, so there would be no change to historical shareholder free cash flow.

(thousands of dollars)

For years ended December 31,	2021	2020	2019	2018	2017
Cash EBITDA	42,696	7,553	17,557	5,037	37,070
EBITDA	42,632	7,386	15,112	4,682	36,513
Difference	64	167	2,445	355	557

EBITDA AND SHAREHOLDER FREE CASH FLOW

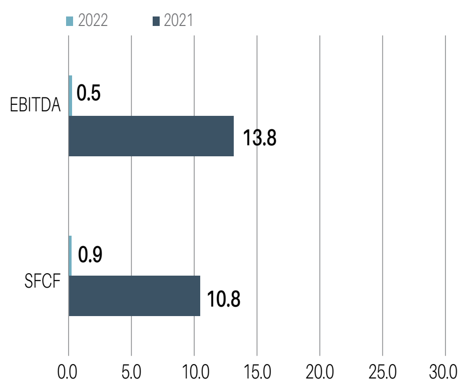
EBITDA and shareholder free cash flow represent the capital available to invest in growing the Company's 2D and 3D seismic data library, to pay interest and principal on its long-term debt, to purchase its common shares, to pay taxes and to pay dividends.

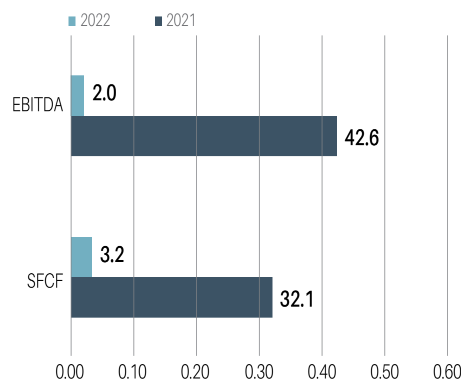
EBITDA is calculated as earnings or loss from operations before interest, taxes, depreciation and amortization.

Shareholder free cash flow further refines the calculation of capital available to invest in growing the Company's 2D and 3D seismic data library, to repay debt, to purchase its common shares and to pay dividends, by adding non-cash expenses and non-cash deferred financing charges and deducting net financing costs and current income tax expense.

A reconciliation of net earnings or loss to EBITDA and shareholder free cash flow follows:

	Three months ended December 31,		Years ended December 31,	
(thousands of dollars, except per share data)	**2022**	2021	**2022**	2021
Net earnings (loss)	**(1,948)**	8,158	**(7,907)**	21,514
Add:				
Amortization of seismic data library	**2,416**	2,500	**9,818**	10,010
Net financing costs	**(9)**	75	**95**	1,827
Income tax expense (recovery)	**(19)**	2,984	**(228)**	8,667
Depreciation	**27**	118	**257**	614
EBITDA	**467**	13,835	**2,035**	42,632
Add:				
Non-cash expenses	**166**	94	**572**	311
Net restructuring costs	**307**	7	**705**	(247)
Non-cash deferred financing charges	**16**	44	**69**	216
Deduct:				
Net financing costs	**(9)**	75	**95**	1,827
Current income tax expense	**57**	3,077	**86**	9,003
Shareholder free cash flow (SFCF)	**908**	10,828	**3,200**	32,082
EBITDA per share basic and diluted	**0.01**	0.26	**0.04**	0.79
SFCF per share basic and diluted	**0.02**	0.20	**0.06**	0.60





As reported in previous filings concerning the Seitel acquisition, Pulse assumed various future liabilities viewed by the Company as being part of the total cost of the acquisition. These costs have been expensed over time between 2019 and 2022 and categorized as restructuring costs, with a large percentage occurring in the first year, 2019. Because these expenses are non-recurring, they are being excluded from the Company's calculation of shareholder free cash flow.

FINANCIAL INSTRUMENTS

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments are recognized on the statement of financial position when the Company becomes a party to the instrument's contractual obligations. The Company's financial assets include cash and cash equivalents, trade and other receivables. Its financial liabilities mainly comprise accounts payable and long-term debt.

FAIR VALUE

The fair values of cash and cash equivalents, accounts receivable and accounts payable approximate their carrying amount largely due to the short-term maturities of these instruments. The fair value of the long-term debt approximates the carrying value because interest charges under the bank loan are based on current Canadian bankers' acceptance rates and margins.

CREDIT RISK

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's accounts receivable.

The Company is exposed to customer credit risk in connection with data sales and participation surveys with its customers. The Company's exposure to credit risk is influenced mainly by the individual characteristics of each customer. The nature of the Company's customer base, including the default risk of the industry in which customers operate, has an influence on credit risk. As the Company operates to a large extent in the oil and natural gas industry, nearly all of its trade receivables relate to customers from this industry.

The effective monitoring and control of credit risk is a core competency of the Company. Each new customer is analyzed individually for creditworthiness before payment and delivery terms and conditions are offered. The Company's review includes credit reference checks and credit limits for all customers as well as other monitoring activities. Accounts receivable aging is reviewed regularly.

In the past, certain customers have signed agreements with the Company that provide for extended payment terms. The Company's credit risk increases on these types of arrangements due to the length of time before payments are received. The risk is mitigated by attempting to limit these types of arrangements to major oil and natural gas companies which have long operating histories and adequate resources to fulfill their commitments.

The Company has been doing business with the majority of its customers for many years, with insignificant credit losses to date. The Company does not require collateral in respect of trade receivables.

The Company's customers are in the oil and natural gas industry, with the majority located in Alberta. At December 31, 2022, 88 percent of total accounts receivable was due from four customers. $788,000 of the total accounts receivable was collected subsequent to year-end. The Company anticipates collection of all remaining amounts including the account for which an allowance impairment was booked.

Accounts receivable over 90 days are monitored and assessed for impairment. Those accounts are evaluated on a case-by-case basis using information received from the customer and market information. The Company has one account due for more than 90 days and has recorded an allowance for its impairment.

Cash and cash equivalents are held with a Canadian chartered bank that is one of Canada's five largest banks. The carrying amount of financial assets represents the maximum credit exposure. The Company considers the risk on cash and cash equivalents to be very low.

LIQUIDITY RISK

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled in cash or other financial assets, i.e., repaying its debt and paying its suppliers. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation. Beyond total working capital of $6.6 million, the Company had a revolving-term credit facility, which offers flexibility in drawing and paying down debt without penalty, of which $25.0 million remained available at December 31, 2022 for future draws, as described in "Liquidity, Capital Resources and Capital Requirements".

The Company regularly monitors cash flow. In addition, it monitors funding options available in the capital markets, as well as trends in the availability and costs of such funding, with a view to maintaining financial flexibility and limiting repayment risks. The Company does not believe it will encounter difficulty in meeting its obligations associated with financial liabilities.

COMMODITY PRICE RISK

The Company is not directly exposed to commodity price risk as it does not have any contracts directly based on commodity prices. A change in commodity prices, specifically oil and natural gas prices, could have a material impact on the Company's customers' cash flows and could therefore affect seismic data library sales and participation surveys. Commodity prices are affected by many factors, including supply and demand. The Company has not entered into any commodity price risk contracts. Given that this is an indirect influence, the financial impact on the Company of changing oil and natural gas prices is not reasonably determinable.

NEW IFRS STANDARDS

A number of new standards, amendments to standards and interpretations have been issued by the International Accounting Standards Board but were not yet effective for the year ending December 31, 2022. Accordingly, they were not applied in preparing the consolidated financial statements. None is expected to have a significant effect on the consolidated financial statements.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions. Management's estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The Company's critical accounting estimates are discussed annually with the Audit and Risk Committee of the Company's Board of Directors and are described below.

SEISMIC DATA LIBRARY

Amortization of the seismic data library, the Company's largest asset, with a net book value of $27.4 million at December 31, 2022 (December 31, 2021 - $37.2 million), is conducted by reference to the estimated timing of the economic return of the seismic library. Amortization of the seismic data library is based on management's estimates of expected future sales, expected useful lives, market developments and experience. These estimates may change due to changes in market conditions, potential prospects, exploration license periods, exploration and development in certain areas, government regulations and general economic conditions. Because of the inherent difficulty in estimating market developments and future sales, the amortization rates might not accurately reflect the systematic allocation of the seismic data library over its useful life.

Additions to the seismic library arise in two ways: (i) participation surveys, and (ii) the purchase of existing seismic data. Costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized to the seismic data library. Subsequent expenditures on data library assets, such as reprocessing and digitization, are capitalized only when the expenditure increases the asset's future economic benefits. All other expenditures are recognized in earnings as incurred.

The costs of purchased data are amortized on a straight-line basis over seven years.

The carrying amounts of the seismic data library are reviewed at each reporting date by management to determine whether there is any indication of impairment. If so, the asset's recoverable amount is estimated and impairment recorded, if any. The determination of the Company's CGUs was based on management's judgements in regards to the smallest identifiable group of seismic data that generates cash inflows largely independent of the cash inflows from other data. Estimating future cash flows and residual values for purposes of impairment testing requires management to make judgments regarding long-term forecasts of future revenues and costs and future residual values related to the seismic data library. These forecasts are uncertain as they require assumptions about future market conditions and demand for seismic data. Significant and unanticipated changes in these assumptions could require a provision for impairment in a future period.

As discussed above, the Company did not recognize an impairment loss in 2022 or 2021.

Estimates of useful lives and the pattern of expected future economic benefits are based on historical experience and internal business plans. Expected future economic benefits are determined based on historical revenue patterns. Future deviations from the Company's historical returns could materially affect the current amortization methodology.

PERFORMANCE SHARE UNITS

In determining the amount of share-based compensation related to PSUs, management makes estimates about future results and vesting criteria. It is reasonably possible that future outcomes could be different from the estimates and could require a material adjustment to the share-based compensation expense recorded in future periods. The impact of any change in the number of PSUs expected to vest is recognized in the period the estimate is revised.

DEFERRED TAX ASSETS

Significant management judgement is required to determine the amount of deferred tax assets that can be recognized, based on the likely timing and level of future taxable income. The estimates of projected future taxable income are based on a variety of factors and assumptions, many of which are subjective and beyond the Company's control. Accordingly, these estimates could differ significantly from year to year, and the Company might end up realizing more or less of the deferred tax assets than recognized in the consolidated financial statements.

DISCLOSURE CONTROLS AND PROCEDURES (DC&P) AND INTERNAL CONTROLS OVER FINANCIAL REPORTING (ICFR)

DC&P

Management has evaluated the effectiveness of its DC&P (as defined in National Instrument 52-109), under the supervision of its CEO and CFO, at December 31, 2022. Based on this evaluation, the CEO and CFO have concluded that the DC&P were effective at December 31, 2022.

ICFR

Management under the supervision of its CEO and CFO evaluated the effectiveness of ICFR (as defined in National Instrument 52-109) at December 31, 2022, in accordance with Internal Control 2013 Integrated Framework, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and the Control Objectives for Information and Related Technology Framework (COBIT). Based on this evaluation, Pulse's CEO and CFO concluded that the ICFR were effective at December 31, 2022.

No changes were made to ICFR during the period beginning on October 1, 2022 and ending on December 31, 2022 that have materially affected, or are reasonably likely to materially affect, Pulse's ICFR.

RISK FACTORS

OIL AND NATURAL GAS PRICES

Most of Pulse's customers are oil and natural gas exploration and development companies. Oil and natural gas prices are volatile and directly affect the capital budgets, drilling activity, and access to capital and credit by Pulse's customers, which in turn directly affect the demand by such customers for seismic data.

DATA ACQUISITION AND DEMAND FOR SEISMIC DATA

Pulse's ability to generate revenue, EBITDA, shareholder free cash flow and earnings and to grow its seismic data library depends on the acquisition of new data and on the demand for seismic data from its oil and natural gas customers over geological plays and areas that such customers focus on in a given period. Activity in such plays and areas depends on commodity prices, customers' budgets, geological understanding, advances in drilling technology, government fiscal and regulatory regimes, and access to processing and pipeline capacity, all of which are beyond Pulse's control. The Company endeavours to grow its high-quality proprietary data library, to expand and maintain its customer base, and to provide good customer service with short delivery time and broad data coverage in prospective locations.

PRICING OF DATA LIBRARY LICENCE SALES

Pulse's ability to generate revenue, EBITDA, shareholder free cash flow and earnings and to grow its data library depends on its ability to market data library licences and on the pricing of these licences.

CYBERSECURITY

Pulse maintains strong cybersecurity over its IT systems, networks and website with the goal of preventing cyber attacks. Cyber attacks are intentional attempts to gain unauthorized access to information systems, networks and websites for unlawful or improper purposes. Attempts to breach cybersecurity are becoming more sophisticated and could lead to unauthorized access and release of confidential information and disruption in operating systems.

Cyber attackers may use a range of techniques, from manipulating people to using sophisticated malicious software and hardware on a single or distributed basis. Some cyber-attacks use a combination of techniques in their attempts to evade safeguards. Pulse uses firewalls, intrusion prevention systems and antivirus software in the security program of its systems and networks. The risk and consequences of cyber-attacks can surpass traditional physical security risk due to the rapidly evolving scope and sophistication of these threats.

A successful attack on Pulse's systems, networks, website or infrastructure could prevent Pulse from providing reliable service and information, allow for the unauthorized interception, destruction, use or dissemination of Pulse's or its customers' information, and/or prevent Pulse from operating its networks. Such events could cause the Company to lose customers, lose revenue, incur expenses, and suffer reputational and goodwill damages. It could also lead to a loss or devaluation of Pulse's intellectual property rights and could subject the Company to litigation or government investigation. The costs of such events could include liability for information loss, and repairs to infrastructure and systems. Pulse's insurance may not cover or be adequate to fully reimburse the Company for these costs and losses.

To mitigate these risks, Pulse has implemented measures and processes that mitigate the risk of physical and cyber attacks. Pulse has policies, controls and monitoring systems that protect its assets and employees. Pulse also uses cyber threat intelligence, testing, intrusion prevention/detection and incident response capabilities to help identify possible cyber threats and adjust its security measures accordingly.

Pulse also has a recovery plan in case of a cyber attack. It includes backup infrastructure and systems that mirror the primary infrastructure and systems used in the day-to-day operations. The recovery plan has been tested.

Pulse also uses a third party to store its physical seismic data, the Company's revenue-generating asset, and a backup copy of the digital seismic data library. The third-party backs-up the data using the same technology as Pulse, which includes redundant offsite storage in a secured data facility as well as tape backups.

As part of the risk management strategy, the Company's IT Director reports in person on a regular basis to the Audit and Risk Committee of the Board of Directors the key risk indicators, including any new risks that Pulse is facing in its day-to-day operations along with updates to the risk mitigation plans. The Audit and Risk Committee has the oversight responsibility for cyber security. The goal of the strategy is to be prepared, protected, and able to quickly detect and respond appropriately to the situation, and to ensure that post-breach reporting requirements are met in case of security breach.

Pulse has not experienced a security incident or breach. If a material security breach happens in the future, the management team's Disclosure Committee would activate the communications plan to inform the relevant stakeholders including employees, directors, customers, securities commissions, stock exchanges, government agencies and shareholders as soon as possible.

RELICENSING FEES AND PARTNER COPY SALES

Data library licences are generally not transferable. Under Pulse's current standard-form licence agreement, upon a change of control of the licensee in a merger or acquisition transaction, a relicensing fee is generally payable if the acquiror wants to keep a copy of the data. Under Pulse's current standard-form licence agreement, a licensee generally may not give the licensed data to a joint interest partner in the oil and natural gas lands. If the joint interest partner wishes to view or interpret the seismic data, it must purchase an additional copy directly from Pulse.

The precise terms of individual licence agreements (including those historically used by Pulse and its predecessors and those assumed by Pulse on data acquisitions) can vary greatly. Relicensing fees may not always be payable and joint interest partners may not always wish or have to purchase an additional licensed copy.

In addition, merger-and-acquisition and joint venture activity in the oil and natural gas industry is unpredictable.

LAWS AND REGULATIONS

Pulse's oil and natural gas customers are subject to federal and provincial laws and regulations, including those pertaining to taxation, royalty rates, environmental protection and safety. Compliance with these laws and regulations, and changes in these laws and regulations, may affect oil and natural gas exploration and development activities and the demand for seismic data licences and participation surveys by such customers.

COMPETITION

Pulse owns the largest seismic data library in Canada, consisting of high-quality data with extensive coverage in the WCSB. Other geophysical companies that own large data libraries are considered to be indirect competitors of Pulse, as there is generally little overlap between 3D databases. With each company owning unique seismic data, clients seeking specific data will usually choose to license available data from the appropriate library as the cost of overshooting an already-surveyed area is much higher than licensing existing data. Seismic data library companies and individual oil and natural gas companies may, however, elect to overshoot an existing 3D dataset if it is not of the desired quality or specifications.

KEY MANAGEMENT, OPERATIONS AND MARKETING PERSONNEL

Pulse depends on certain key management, operations and marketing personnel for the success of its seismic acquisition, marketing and licensing business. Pulse endeavours to obtain written employment agreements with such personnel containing confidentiality and non-competition provisions where appropriate. Personnel risk is further mitigated by providing compensation packages designed to support Pulse's business philosophy and which are both market-driven and performance-based. This includes short- and long-term incentive programs which are directly tied to shareholder free cash flow per share, which the Board of Directors believes is the key financial metric for the long-term increase in the value of Pulse. Pulse also has a succession plan to provide adequate training and education to its future leaders, which is reviewed annually by the Board of Directors.

LOSS OF SEISMIC DATA

Pulse's largest asset and source of revenue is the seismic data library. The safety and security of the data library asset is essential to the Company's success. The physical data is stored in two secure locations and managed by Pulse staff and a data storage company. The physical data has been digitized, and backup digital copies are kept in separate secure locations. For further information, please also see "Cybersecurity" above.

PROTECTION OF INTELLECTUAL PROPERTY

Pulse relies on a combination of licence agreements, copyright, confidentiality and other intellectual property rights to protect its ownership rights and copyright in its seismic data. Despite Pulse's efforts to enforce its licence agreements and copyright, there is a risk that unauthorized parties might improperly obtain, copy or use Pulse's seismic data without Pulse's knowledge or permission. The cost of litigation necessary to enforce Pulse's ownership rights and copyright could be prohibitive.

NEW PRODUCTS

Seismic data is used by oil and natural gas exploration and development companies to identify portions of geological formations that have the potential to hold hydrocarbons. There are currently no other products that compete directly against seismic data for such purposes. Should a new product or method be introduced that was technically and/or economically comparable or superior to seismic data, Pulse's data library sales and/or the pricing thereof could be adversely affected.

CLIMATE CHANGE

The Company's seismic data library is a digital asset that is generally unaffected by climate change. Climate change, however, affects Pulse's customers, the oil and natural gas exploration and production companies which license seismic data for drilling and exploration. Carbon and environmental laws and regulations, including those related to climate change and carbon regulations, as well as the apprehended physical effects of climate change, including extreme weather events, resource shortages and changing sea levels and temperatures, may over time adversely affect these companies, their businesses, operations and financial condition, and are likely to change their exploration, development and production programs, their capital expenditures and their need for seismic data, which could in turn result in an unmeasurable adverse impact on Pulse's sales, cash flow and profitability.

The Company recognizes climate change as an important global challenge and is committed to promoting responsible energy use in its own business and operations. The Board of Directors and management routinely monitor proposed changes in carbon and environmental policy, legislation and regulation and will continue to assess the risks of climate change on the Company's business and operations.

ADDITIONAL INFORMATION

You may find additional information relating to Pulse, including the Company's Annual Information Form, on SEDAR at www.sedar.com.

FORWARD-LOOKING INFORMATION

This document contains information that constitutes "forward-looking information" or "forward-looking statements" (collectively, "forward-looking information") within the meaning of applicable securities legislation. Forward-looking information is often, but not always, identified by the use of words such as "anticipate", "believe", "expect", "plan", "intend", "forecast", "target", "project", "guidance", "may", "will", "should", "could", "estimate", "predict" or similar words suggesting future outcomes or language suggesting an outlook.

This MD&A and, specifically, the Outlook and the Liquidity, Capital Resources and Capital Requirements sections herein contain forward-looking information which includes, but is not limited to, statements regarding:

- The outlook of the Company for the year ahead, including future operating costs and expected revenues;
- Recent events on the political, economic, regulatory, public health and legal fronts affecting the industry's medium- to longer- term prospects, including progression and completion of contemplated pipeline projects;
- The Company's capital resources and sufficiency thereof to finance future operations, meet its obligations associated with financial liabilities and carry out the necessary capital expenditures through 2023;
- Pulse's capital allocation strategy;
- Pulse's dividend policy;
- Oil and natural gas prices and forecast trends;
- Oil and natural gas drilling activity and land sales activity;
- Oil and natural gas company capital budgets;
- Future demand for seismic data;
- Future seismic data sales;
- Pulse's business and growth strategy; and
- Other expectations, beliefs, plans, goals, objectives, assumptions, information and statements about possible future events, conditions, results and performance, as they relate to the Company or to the oil and natural gas industry as a whole. Sources for the forecasts and the material assumptions underlying this forward-looking information are, where applicable, noted in the relevant sections of this MD&A.

Sources for the forecasts and the material assumptions underlying this forward-looking information are, where applicable, noted in the relevant sections of this MD&A.

By its very nature, forward-looking information involves inherent risks and uncertainties, both general and specific, and risks that predictions, forecasts, projections and other forward-looking statements will not be achieved. Pulse does not publish specific financial goals or otherwise provide guidance, due to the inherently poor visibility of seismic revenue. Pulse cautions readers not to place undue reliance on these statements as a number of important factors could cause the actual results to differ materially from the beliefs, plans, objectives, expectations, estimates and intentions expressed in such forward-looking information. These factors include, but are not limited to:

- Uncertainty of the timing and volume of data sales from the recently acquired seismic data library, which was partially funded with long-term debt;
- Volatility of oil and natural gas prices;

- Risks associated with the oil and natural gas industry in general;
- The Company's ability to access external sources of debt and equity capital;
- Credit, liquidity and commodity price risks;
- The demand for seismic data;
- The pricing of data library licence sales;
- Cybersecurity;
- Relicensing (change-of-control) fees and partner copy sales;
- Environmental, health and safety risks, including those related to the COVID-19 pandemic;
- Federal and provincial government laws and regulations, including those pertaining to taxation, royalty rates, environmental protection, public health and safety;
- Competition;
- Dependence on key management, operations and marketing personnel;
- The loss of seismic data;
- Protection of intellectual property rights;
- The introduction of new products; and
- Climate change.

Pulse cautions that the foregoing list of factors that may affect future results is not exhaustive. Additional information on these risks and other factors which could affect the Company's operations and financial results is included under "Risk Factors" herein, under "Risk Factors" in the Company's most recent annual information form, and in the Company's most recent audited annual financial statements, management information circular, quarterly reports, material change reports and news releases. Copies of the Company's public filings are available on SEDAR at www.sedar.com.

When relying on forward-looking information to make decisions with respect to Pulse, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Furthermore, the forward-looking information in this document is provided for the limited purpose of enabling current and potential investors to evaluate an investment in Pulse. Readers are cautioned that such forward-looking information may not be appropriate, and should not be used, for other purposes.

Independent Auditor's Report

To the Shareholders of Pulse Seismic Inc.:

Opinion

We have audited the consolidated financial statements of Pulse Seismic Inc. (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2022 and December 31, 2021, and the consolidated statements of net earning (loss) and comprehensive income (loss), changes in equity and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as at December 31, 2022 and December 31, 2021, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards.

Basis for Opinion

We conducted our audits in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Revenue recognition

Key Audit Matter Description

The accounting policy for revenue recognition is set out in Note 3(a) and Note 4 to the consolidated financial statements. The transfer of control of seismic data from data library sales was identified as a key audit matter as the point in time in which control transfers to the customer may require management's judgment. Significant auditor judgment was required to evaluate evidence for the point in time in which a customer obtains control of seismic data in a data library sale.

Audit Response

We responded to this matter by performing procedures in relation to revenue recognition. Our audit work in relation to this included, but was not restricted to, the following:

- We selected a sample of data library sales contracts throughout the year to evaluate the point in time when control of the data library is transferred to the customer;
- We verified the completion of performance obligations satisfied at a point in time through proof of data transfer;
- We assessed the receipt and collectibility of the revenue recognized on data library sales; and,
- We assessed the appropriateness of the disclosures relating to recognition of revenue in the notes to the consolidated financial statements.

Other Information

Management is responsible for the other information. The other information comprises Management's Discussion and Analysis.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audits of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audits or otherwise appears to be materially misstated. We obtained Management's Discussion and Analysis prior to the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Stephen Bonnell.

Calgary, Alberta

February 16, 2023

Chartered Professional Accountants

Consolidated Statements of Financial Position

(thousands of Canadian dollars)

As at December 31,	*Note*	**2022**	2021
ASSETS			
Cash and cash equivalents		**5,822**	—
Trade and other receivables	*5*	**1,088**	15,030
Current tax assets		**398**	—
Prepaid expenses		**430**	363
Total current assets		**7,738**	15,393
Seismic data library	*6*	**27,410**	37,228
Property and equipment		**14**	50
Deferred financing costs		**42**	—
Right-of-use assets	*7*	**18**	228
Total non-current assets		**27,484**	37,506
Total assets		**35,222**	52,899
LIABILITIES AND SHAREHOLDERS' EQUITY			
Accounts payable and accrued liabilities		**1,077**	2,593
Deferred revenue		**47**	45
Current portion of lease liabilities	*7*	**21**	479
Current income tax liabilities		**—**	2,527
Total current liabilities		**1,145**	5,644
Long-term debt	*8*	**—**	2,265
Deferred income tax liabilities	*9 (b)*	**264**	572
Lease liabilities	*7*	**—**	21
Other long-term payable	*11*	**317**	256
Total non-current liabilities		**581**	3,114
Total liabilities		**1,726**	8,758
SHAREHOLDERS' EQUITY			
Share capital	*10 (a)*	**74,350**	74,569
Contributed surplus		**2,958**	2,702
Deficit		**(43,812)**	(33,130)
Total shareholders' equity		**33,496**	44,141
Total liabilities and shareholders' equity		**35,222**	52,899
Subsequent event	*21*		

See accompanying notes to consolidated financial statements.

On behalf of the Board:

Robert Robotti
Chair of the Board

Paul Crilly
Audit and Risk Committee Chair

Consolidated Statements of Net Earnings (Loss) and Comprehensive Income (Loss)

(thousands of Canadian dollars except per share data)

Years ended December 31,	Note	2022	2021
Revenue			
Data library sales	*4*	**9,345**	48,717
Other revenue		**225**	433
Total revenue		**9,570**	49,150
Operating expenses			
Amortization of seismic data library	*6*	**9,818**	10,010
Salaries, internal commissions and benefits	*13*	**4,470**	4,613
Other selling, general and administrative costs	*14*	**3,065**	1,905
Depreciation		**257**	614
Total operating expenses		**17,610**	17,142
Results from operating activities		**(8,040)**	32,008
Financing costs			
Financing expenses	*15*	**198**	1,889
Interest income		**(103)**	(62)
Net financing costs		**95**	1,827
Earnings (loss) before income taxes		**(8,135)**	30,181
Current income tax expense		**86**	9,003
Deferred income tax recovery		**(314)**	(336)
Income tax expense (recovery)	*9 (d)*	**(228)**	8,667
Net earnings (loss) and comprehensive income (loss)		**(7,907)**	21,514
Net earnings (loss) per share, basic and diluted	*12*	**(0.15)**	0.40

See accompanying notes to consolidated financial statements.

Consolidated Statements of Changes in Equity

(thousands of Canadian dollars, except number of shares)

	Note	Number of shares issued	Share capital	Contributed surplus	Deficit	Total equity
Balance at January 1, 2021		53,793,317	74,581	2,500	(51,815)	25,266
Net earnings for the period		—	—	—	21,514	21,514
Share-based compensation	*11*	—	—	311	—	311
Settlement of vested long-term incentive plan award		—	—	(163)	—	(163)
Tax effect of equity-settled share-based compensation	*9 (c)*	—	—	54	—	54
Normal course issuer bid		(8,600)	(12)	—	(5)	(17)
Dividends paid		—	—	—	(2,824)	(2,824)
Balance at December 31, 2021		53,784,717	74,569	2,702	(33,130)	44,141

	Note	**Number of shares issued**	**Share capital**	**Contributed surplus**	**Deficit**	**Total equity**
Balance at January 1, 2022		**53,784,717**	**74,569**	**2,702**	**(33,130)**	**44,141**
Net loss for the period		—	—	—	**(7,907)**	**(7,907)**
Share-based compensation	*11*	—	—	**572**	—	**572**
Settlement of vested long-term incentive plan award	*11*	—	—	**(310)**	—	**(310)**
Tax effect of equity-settled share-based compensation	*9 (c)*	—	—	**(6)**	—	**(6)**
Normal course issuer bid	*10 (a)*	**(157,848)**	**(219)**	—	**(90)**	**(309)**
Dividends paid	*10 (b)*	—	—	—	**(2,685)**	**(2,685)**
Balance at December 31, 2022		**53,626,869**	**74,350**	**2,958**	**(43,812)**	**33,496**

See accompanying notes to consolidated financial statements.

Consolidated Statements of Cash Flows

(thousands of Canadian dollars)

Years ended December 31,	Note	2022	2021
Cash flows provided by (used in):			
Operating:			
Net earnings (loss) and comprehensive income (loss)		**(7,907)**	21,514
Adjustment for:			
Amortization of seismic data library	*6*	**9,818**	10,010
Depreciation		**257**	614
Income tax expense (recovery)	*9 (d)*	**(228)**	8,667
Share-based compensation	*11*	**572**	311
Net financing costs		**95**	1,827
Interest and standby fees paid		**(122)**	(1,893)
Interest paid — lease liabilities	*7*	**(12)**	(45)
Interest received		**101**	—
Income tax paid		**(3,115)**	(6,688)
Income tax received		**104**	—
		(437)	34,317
Net change in non-cash working capital	*16*	**12,429**	(4,518)
Cash provided by operating activities		**11,992**	29,799
Financing:			
Normal course issuer bid	*10 (a)*	**(309)**	(17)
Shares purchased for equity-settled share-based payments	*11*	**(310)**	(163)
Repayment of long-term debt		**(2,375)**	(25,603)
Dividends paid	*10 (b)*	**(2,685)**	(2,824)
Lease payments for principal		**(479)**	(771)
Debt transaction costs		**—**	(63)
Cash used in financing activities		**(6,158)**	(29,441)
Investing:			
Seismic data digitization and related costs	*7*	**—**	(350)
Additions to property and equipment		**(12)**	(8)
Cash used in investing activities		**(12)**	(358)
Increase (decrease) in cash and cash equivalents		**5,822**	—
Cash and cash equivalents, beginning of year		**—**	—
Cash and cash equivalents, end of year		**5,822**	—

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

INFORMATION AS AT DECEMBER 31, 2022 AND 2021 AND FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

(Tabular amounts in thousands of Canadian dollars, except per share data, numbers of shares and other exceptions as indicated.)

1. REPORTING ENTITY

Pulse Seismic Inc. (the Company) was incorporated under the Canada Business Corporations Act and is a publicly-listed company on the Toronto Stock Exchange (TSX) trading under the symbol PSD and on the OTCQX International trading under the symbol PLSDF. The Company's registered office is located at 421, 7th Avenue SW in Calgary, Alberta. The Company is a provider of seismic data to the energy and resource sector in western Canada.

2. BASIS OF PREPARATION

(A) STATEMENT OF COMPLIANCE

The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS).

The consolidated financial statements were prepared by the Company's management and were approved by the Board of Directors on February 16, 2023.

(B) BASIS OF PRESENTATION

The consolidated financial statements include the accounts of the Company's wholly-owned subsidiaries. Certain comparative figures have been reclassified to conform to the current year's presentation.

(C) BASIS OF MEASUREMENT

The consolidated financial statements were prepared on the historical cost basis.

(D) FUNCTIONAL AND PRESENTATION CURRENCY

The consolidated financial statements are presented in Canadian dollars, the Company's functional currency. All financial information presented in Canadian dollars has been rounded to the nearest thousand, except per share data, number of shares and other exceptions as indicated.

(E) BASIS OF CONSOLIDATION

(I) JOINT OPERATIONS

Certain of the Company's seismic data library assets are jointly owned with others. The consolidated financial statements include the Company's share in the joint assets, joint liabilities, expenses incurred and income earned from the joint operations.

(II) TRANSACTIONS ELIMINATED ON CONSOLIDATION

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements.

(F) USE OF ESTIMATES AND JUDGEMENTS

Preparing the consolidated financial statements in accordance with IFRS required management to make estimates and judgements that affected the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the revenue and expenses attributed to the reporting period. Actual results could differ from those estimates.

Estimates and underlying assumptions are reviewed at a minimum annually, as required by IFRS. Changes to accounting estimates are recognized in the year in which the estimates are revised and in any future years affected.

The following note provides information about critical judgements in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements:

- Note 3(a) – Traditional data library sales are conducted under various types of licensing agreements. These contracts may require management to use judgement to assess when control of seismic data has transferred to the customer in accordance with IFRS 15. As a result, these judgments affect the timing of revenue recognition.
- Note 3(g) – The Company uses judgement in determining its cash-generating units (CGUs) for purposes of impairment testing. The determination was based on management's judgement in regard to the smallest identifiable group of seismic data that generates cash flows that are largely independent of the cash flows from other data. Changes in the determination of CGUs could have a significant impact on the carrying value of the assets and result in additional impairment charges or reversal of impairment charges in future periods.

The following notes provide information about assumptions and estimation uncertainties that could result in a material adjustment in future years:

- Note 3(c) –The Company applies an expected credit loss, or ("ECL"), model to all debt financial assets not held at fair value through profit and loss, or "FVTPL", where credit losses that are expected to transpire in futures years are provided for, irrespective of whether a loss event has occurred or not as at the consolidated statements of financial position date. For trade and other receivables, the Company has applied the simplified approach under IFRS 9 and have calculated ECLs based on lifetime expected credit losses, taking into consideration historical credit loss experience and financial factors specific to the debtors and general economic conditions. ECL's are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of the difference between the cash flows due in accordance with the contract and the cash flow the Company expects to receive. ECL's are discounted at the effective interest rate of the financial asset.
- Note 3(e) – Amortization of seismic data library is based on management's estimates of expected future sales, expected useful lives, market developments and experience. These estimates may change due to changes in market conditions, potential prospects, exploration licence duration, exploration and development in certain areas, government regulations and general economic conditions. Because of the inherent difficulty in estimating market developments and future sales, the amortization rates might not accurately reflect the useful life of the data library. The amortization rates are adjusted if it is determined that estimated useful lives have changed.
- Note 3(g) – Impairment tests, if required, involve the estimation of future cash flows, requiring management to make judgments regarding long-term forecasts of future revenues and costs related to the seismic data library and residual values. These forecasts are subject to uncertainty as they require assumptions about demand for seismic data and future market conditions. Significant changes in these assumptions could require a provision for impairment in a future period.
- Note 3(h) – Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to determine the amounts of recognizable deferred tax assets, based on the likely timing and level of future taxable profits. The estimates of projected future taxable profits are based on a variety of factors and assumptions, many of which are subjective and outside the Company's control. Accordingly, these estimates could differ significantly from year to year, and the Company might end up realizing more or less of the deferred tax assets than it has recognized in the consolidated financial statements.
- Note 3(k) – The number of Performance Share Units (PSUs) expected to vest is based on management's estimates of expected future results and vesting criteria in subsequent years. These forecasts are uncertain as they require assumptions about future market conditions, revenues, expenses and vesting criteria. Significant changes in the assumptions could require an adjustment to the amount of share-based compensation recognized.

3. SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out below have been applied consistently to both years presented in these consolidated financial statements.

(A) REVENUE RECOGNITION

Revenue for data library sales is recognized when a customer obtains control of seismic data through receipt and acceptance of the data, at which point invoices are generated. Invoices are usually payable within 30 days.

Some customers request extended payments terms which, when granted by the Company, usually are not for more than one year. For such transactions, the Company discounts its account receivable and the related data library sales revenue is reallocated to interest income.

(B) BUSINESS COMBINATIONS/ASSET ACQUISITIONS

Where appropriate, the Company applies the acquisition method to account for business combinations. The Company measures goodwill as the fair value of the consideration transferred, less the fair value of the identifiable assets acquired and liabilities assumed, all measured at the acquisition date.

The Company makes judgments on a case-by-case basis to determine whether an acquisition meets the definition of a business and, in turn, to determine whether a transaction should be accounted for as a business combination or as an asset acquisition. An optional concentration test may also be applied that permits a simplified assessment of whether or not an acquired set of activities and assets is a business.

The concentration test is met if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If the test is met, the Company can elect to account for the acquisition as an asset acquisition instead of a business acquisition.

(C) FINANCIAL INSTRUMENTS

Financial assets of the Company include cash and cash equivalents and trade receivables. Financial liabilities of the Company mainly comprise accounts payable and accrued liabilities, other long-term payable, and long-term debt.

Classification and measurement of financial assets and financial liabilities are included in the following table:

Financial Instrument	Category	Measurement
Cash and cash equivalents	Assets at amortized cost	Amortized cost
Accounts receivable	Assets at amortized cost	Amortized cost
Accounts payable and accrued liabilities	Financial liabilities at amortized cost	Amortized cost
Other long-term payable	Financial liabilities at amortized cost	Amortized cost
Long-term debt	Financial liabilities at amortized cost	Amortized cost

(D) CASH AND CASH EQUIVALENTS

Short-term investments with an original maturity of three months or less, net of the operating line of credit, are considered to be cash equivalents.

(E) SEISMIC DATA LIBRARY

The seismic data library has a finite useful life and is measured at cost less accumulated amortization and impairment losses. Additions to the seismic data library arise in two distinct ways: (i) participation surveys and (ii) the purchase of existing data. Costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized to the seismic data library.

Subsequent expenditures on data library assets, such as reprocessing and digitization, are capitalized only when the expenditure increases the asset's future economic benefits. All other expenditures are recognized in earnings as incurred.

Amortization is calculated over the cost of the asset.

The costs of purchased data are amortized on a straight-line basis over seven years.

Amortization is based on management's estimates of expected future sales, expected useful lives, market developments and experience. These estimates may change due to changes in market conditions, potential prospects, exploration licence duration, exploration and development in certain areas, government regulations and general economic conditions. Amortization methods and useful lives are reviewed at each financial year-end and adjusted if appropriate.

(F) PROPERTY AND EQUIPMENT

Property and equipment are recorded at cost less accumulated depreciation and impairment losses. Cost includes expenditures that are directly attributable to the acquisition of the asset.

Depreciation is calculated over the depreciable amount, which is the cost of an asset less its residual value. Depreciation is recognized in earnings over the estimated useful life of an item of property and equipment on a straight-line basis.

Depreciation is provided using the following methods:

	Straight line
Computer hardware and software	3 years
Office equipment	5 years
Leasehold improvements	Balance of lease term

(G) IMPAIRMENT OF LONG-LIVED ASSETS

The carrying amounts of the seismic data library, property and equipment, and intangible assets are reviewed at each reporting date by management to determine whether there is an indication of impairment. If so, the asset's recoverable amount is estimated based on the higher of its fair value less costs to sell and its value in use.

Factors considered important by the Company that could trigger an impairment assessment include:

- Significant underperformance relative to expected operating results based on historical and/or projected data;
- Significant changes in the manner of the use of the asset or the strategy of the overall business; and
- Significant negative industry or economic trends.

The recoverable amount of tangible and intangible assets is the greater of value in use and fair value less costs of disposal. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessment of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets are classified in the smallest grouping that generates cash flows from continuing use that are largely independent of the cash flows of other assets or groups (the CGU).

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in earnings or loss. Impairment losses recognized in respect of a CGU are allocated to the carrying amount of the assets in the unit on a pro-rata basis.

Impairment losses for assets recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount and only to the extent that the assets' carrying value does not exceed the carrying amount that would be determined, net of amortization or depreciation, if no impairment loss had been recognized.

(H) INCOME TAXES

Income tax expense comprises current and deferred tax. Income tax expense is recognized in earnings or loss except to the extent that it relates to items recognized directly in equity, in which case it is recognized in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to taxes payable in respect of previous years.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is measured at the tax rates expected to be applied to the temporary differences when they are reversed, based on the laws enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different taxable entities but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

Deferred tax is not recognized for the following differences:

- The initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable income or loss; and
- Differences relating to investments in subsidiaries and jointly controlled entities to the extent that it is probable they will not be reversed in the foreseeable future.

A deferred tax asset is recognized to the extent that it is probable that future taxable income will be available against which deductible temporary differences can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable the related tax benefit will be realized.

(I) PER SHARE AMOUNTS

Basic per share amounts are calculated using the weighted average number of shares outstanding during the year.

(J) SHARE CAPITAL

Common shares are classified as equity. When shares are sold, the consideration received, including directly attributable costs, net of any tax effect, is recognized as a change in share capital. The Company purchases shares for cancellation under its normal course issuer bid (NCIB). The cost of purchasing shares for cancellation is first charged to share capital to the extent of the average carrying value of the common shares purchased and the excess is charged to retained earnings. No gain or loss is recognized in the consolidated statements of net loss and comprehensive loss on the purchase, sale, issuance or cancellation of the Company's own equity instruments.

(K) SHARE-BASED PAYMENTS

The Company has a long-term incentive plan (LTIP) under which participants are granted restricted share units (RSUs) and performance share units (PSUs). All amounts awarded are at the discretion of the Board of Directors. RSUs and PSUs have accompanying dividend-equivalent rights and, therefore, additional RSUs and PSUs are issued to reflect dividends declared, if applicable, on the common shares. The plan's trustee will purchase common shares on the open market for the after-tax number of RSUs and PSUs vested with funds provided by the Company. The RSUs and PSUs are treated as equity-settled share-based payments and the related payroll taxes are treated as cash-settled share-based payments.

The compensation expense is recognized over the vesting period. For equity-settled share-based payments, the compensation expense is based on the number of RSUs and PSUs expected to vest and the market value of a common share of the Company on the grant date, with a corresponding increase to contributed surplus. For cash-settled share-based payments, the compensation expense is measured initially at the fair market value of the Company's shares at the grant date and subsequently adjusted for the additional shares granted based on the reinvestment of notional dividends and the market value of the shares at the end of each reporting period, with a corresponding increase to liabilities.

(L) EMPLOYEE BENEFITS

Short-term employee benefit obligations are calculated on an undiscounted basis and are expensed as the related services are provided.

A liability is recognized for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Company has a current legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(M) LEASES

At inception of a contract, the Company assesses whether a contract is or contains a lease. A contract is or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. In order to perform this assessment, the Company determines whether: i) the Company has the right to obtain substantially all of the economic benefits from use of the asset through the period of use; and ii) the Company has the right to direct the use of the identified asset. The term of the lease is determined as the non-cancellable period of a lease and periods in which there is reasonable certainty the Company will exercise an option to extend or cancel a lease. The Company considers all relevant facts and circumstances that would create an economic incentive to extend or terminate a lease.

When a lease is identified, a right-of-use asset and a liability are recognized. At the commencement date of a lease, the Company measures lease liabilities at the present value of remaining lease payments, discounted using the interest rate implicit in a lease, if that rate can be readily determined. If that rate cannot be readily determined, the Company uses its incremental borrowing rate. Prospectively, the carrying amount of lease liabilities is increased by interest, offset by lease payments made. The initial cost of right-of-use assets is measured as the value of the lease liability, adjusted for any lease incentives received and initial direct costs. Right-of-use assets are depreciated over the shorter of the lease term or the useful life of the asset and recognized as cost less any accumulated depreciation and impairment losses.

(N) NET FINANCING COSTS OR INCOME

Financing expenses consist of interest and standby fee expense on long-term debt and amortization of the deferred financing costs. All borrowing costs are recognized in earnings or loss using the effective interest rate method.

Interest income is earned from term deposits and discounted accounts receivable with payment terms.

(O) GOVERNMENT GRANTS

Government grants are recognized when there is reasonable assurance that the grant will be received and all conditions associated with the grant are met. The Company has elected to deduct the wage subsidy from salaries, internal commissions and benefits and the rent subsidy from other selling, general and administrative costs.

4. REVENUE

DATA LIBRARY SALES

There are three ways to disaggregate the Company's data library sales: transaction type, data type and geographically. Revenue fluctuations are a normal part of the seismic data library business, and data library sales can vary significantly year-over-year by transaction type, data type and geographically.

Traditional data library sales can occur at any time. This is due to the nearly continual changes in oil and natural gas industry conditions, increased demand for seismic data covering a specific area or reservoir type ("play"), and the timing of public offerings of petroleum and natural gas rights ("land sales").

Transaction-based sales can also occur at any time. This is due to corporate merger-and-acquisition, joint venture and asset disposition activity by the Company's customers, which is unpredictable.

The following tables provide a summary of the Company's revenue disaggregated by type:

(A) TRANSACTION TYPE

Years ended December 31,	**2022**	2021
Traditional sales	**9,112**	12,942
Transaction-based sales	**233**	35,775
Total data library sales	**9,345**	48,717

Traditional data library sales are conducted under various types of sale contracts. These are classified as data library sales, library cards, commitment cards and review-and-possession agreements. The unearned portion of a contract's value is deferred until the Company's revenue recognition criteria are met, with data library sales revenue being recognized upon transfer of control of the seismic data to the customer.

There are three main types of transaction-based sales: partnership or joint venture, corporate merger or acquisition, and oil and natural gas asset or group sales.

The first type, the partnership or joint venture sale, occurs when an oil and natural gas asset holder elects to pool their expertise, capital and/or assets with one or more new participants to explore or develop a play. Any new technical or operational participant that wishes to view or interpret the seismic data must purchase a data licence from the Company.

The second type, a corporate merger or acquisition sale, is triggered when the seismic data is transferred to the new organization. The buyer has 30 days to determine whether they would like to pay a change-of-control fee to keep the data licence or return the data to the Company.

In the third type, the sale of an oil and natural gas asset or group of assets, the related seismic data licence is not transferable. No rights to the seismic data accrue to the buyer, and there are no terms of payment in the licence agreement. Should the buyer be interested in the Company's seismic data, they must license the data from the Company. This type of sale is nevertheless classified as transaction-type because the triggering event is a transaction.

The precise terms of individual licence agreements can vary greatly. Change-of-control fees and joint venture copy fees may not always be payable, and licence agreements may not always be non-assignable.

(B) DATA TYPE

Years ended December 31,	**2022**	2021
2D data sales	**4,581**	5,348
3D data sales	**4,764**	43,369
Total data library sales	**9,345**	48,717

The Company's data library consists of 2D and 3D seismic data. As 3D seismic licence contracts are generally larger than 2D seismic licence contracts, the percentage of seismic data library sales generated from 2D and 3D data sales fluctuates significantly depending on the number of 3D seismic sale contracts signed during a given period.

(C) GEOGRAPHICAL BREAKDOWN

Years ended December 31,	**2022**	2021
Alberta sales	**6,658**	41,022
British Columbia sales	**1,458**	6,171
Other area sales	**1,229**	1,524
Total data library sales	**9,345**	48,717

The Company's customers are currently and generally focusing on liquids-rich natural gas and light oil pools found primarily in a broad corridor running from northwest of Calgary, Alberta, along the Foothills of the Rocky Mountains to the British Columbia border, as compared to "dry" natural gas more often found in British Columbia, on Alberta's eastern prairies and in Saskatchewan and Manitoba. For the year ended December 31, 2022, 71 percent (year ended December 31, 2021 – 84 percent) of the data library sales were from data located in Alberta, 16 percent from British Columbia (year ended December 31, 2021 –13 percent) and 13 percent from other areas (year ended December 31, 2021 – 3 percent).

5. TRADE AND OTHER RECEIVABLES

As at December 31,	**2022**	2021
Data library trade receivables	**1,065**	14,686
Other	**23**	344
	1,088	15,030

6. SEISMIC DATA LIBRARY

	2022	2021
Cost		
Opening balance, January 1,	**506,798**	506,448
Seismic digitization and related cost	—	350
Closing balance, December 31,	**506,798**	506,798
Accumulated amortization		
Opening balance, January 1,	**469,570**	459,560
Amortization for the period	**9,818**	10,010
Closing balance, December 31,	**479,388**	469,570
Carrying amount, December 31,	**27,410**	37,228

At December 31, 2022 and 2021, the Company assessed the CGUs in its seismic data library for indicators of impairment, as required under IFRS, and concluded there were no new indicators and, accordingly, that no impairment test was required.

7. RIGHT-OF-USE (ROU) ASSETS AND LEASE LIABILITIES

The ROU assets and related lease liabilities are included in the tables below:

ROU Assets

As at December 31,	**2022**	2021
Office and warehouse leases	**228**	733
Less		
Depreciation in the year	**(210)**	(505)
ROU assets	**18**	228

Lease Liabilities

As at December 31,	**2022**	2021
Opening balance	**500**	1,358
Repayments on principal and interest	**(491)**	(903)
Interest expense	**12**	45
Total lease liabilities	**21**	500
Less		
Current portion	**(21)**	(479)
Long-term portion	—	21

In January 2017 the Company signed a sublease agreement for an office space, which expires in March 2023.

On January 15, 2019, following the acquisition of Seitel Canada Ltd. (Seitel), the Company assumed two leases, one for a warehouse and another for an office space. The lease agreement for the warehouse expired in April 2022 and for the office space in November 2022.

On October 20, 2022 the Company entered into a lease agreement for office space for the period of April 2023 to June 2028. The ROU assets and related lease liabilities will be recognized on April 1, 2023.

8. LONG-TERM DEBT

As at December 31,	**2022**	2021
Revolving credit facility	—	2,375
Deferred financing cost	—	(110)
Total long-term debt	—	2,265

On December 21, 2021, the Company renewed its revolving credit facility and extended the maturity date for two years to January 15, 2025. The facility's available borrowing amount remains at $25.0 million and all other major terms, including financial covenants, were unaffected by the renewal.

Significant terms of the credit facility are:

- Interest is calculated based on the lender's prime rate, bankers' acceptance rate or LIBOR, plus an applicable margin based on the covenant ratio of total debt to adjusted EBITDA following a ten-tier structure. At December 31, 2022, the applicable interest rate was 7.2 percent, based on level 1 of the 10 rates specified under the facility;
- Standby fee is based on the daily undrawn balance of the credit facility and the Company's total debt to adjusted EBITDA ratio following a ten-tier margin structure. At December 31, 2022, the applicable standby fee was set at level 1 of the 10 rates specified under the facility;
- Three-year term until January 15, 2025, with an extension of up to one year available on January 15 of every year with the approval of the lender. If the extension is not granted, any outstanding amounts will be payable on the then-current applicable maturity date; and
- Security through a charge on all of the assets of the Company and its material subsidiaries.

The revolving credit facility also includes the following financial covenants:

(1) MAXIMUM LONG-TERM DEBT TO ADJUSTED EBITDA RATIO

The long-term debt to adjusted EBITDA ratio shall not be greater than 3.0:1 on December 31, 2022 and thereafter.

Adjusted EBITDA is to be calculated on a trailing 12-month basis and is defined as earnings or loss before interest, income taxes, depreciation and amortization, plus extraordinary losses, non-cash losses and expense charges, and any other unusual or non-recurring cash charges, expenses or losses consented to by the lenders, less participation survey revenue, lease payments treated as capital lease, warehouse storage fees, extraordinary gains and non-cash gains and income. Adjusted EBITDA is to be adjusted for acquisitions or dispositions to reflect such acquisition or disposition as if it occurred on the first day of such calculation period.

(2) MINIMUM INTEREST COVERAGE RATIO

The minimum interest coverage ratio is defined as the ratio of adjusted EBITDA to interest expense.

The minimum interest coverage ratio shall not be less than 2.5:1 at December 31, 2022 and thereafter.

At December 31, 2022, the long-term debt to adjusted EBITDA ratio was 0.0:1 and the interest coverage ratio was 17.4:1. The Company was in compliance with all covenants at December 31, 2022.

At December 31, 2022, Pulse's revolving credit facility had a zero balance, with the full $25.0 million of borrowing capacity available.

9. DEFERRED TAX ASSETS AND LIABILITIES

(A) UNRECOGNIZED DEFERRED TAX ASSETS

Deferred tax assets have not been recognized in respect of the following temporary differences:

As at December 31,	2022	2021
Foreign exploration and development expense (FEDE)	648	712
Capital losses	3,297	3,297
	3,945	4,009

Deferred tax assets for these items have not been recognized because utilization of FEDE against future taxable income and future capital gains is improbable.

(B) RECOGNIZED DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets and liabilities are attributable to the following:

As at December 31,	2022	2021
Deferred income tax assets:		
Financing fees	42	55
Resource expenditures	110	124
Long-term incentive plan	327	232
Deferred income tax asset	479	411
Deferred income tax liability:		
Seismic data library and participation surveys	743	983
Net deferred income tax liabilities	264	572

(C) MOVEMENT IN TEMPORARY DIFFERENCES DURING THE YEAR

	Deferred tax liabilities (assets) January1, 2021	Recognized in income	Recognized in equity	Deferred tax liabilities (assets) December 31,2021
Resource expenditures	(119)	(5)	—	(124)
Financing costs	(32)	(23)	—	(55)
Long-term incentive plan	(72)	(106)	(54)	(232)
Seismic data library	1,185	(202)	—	983
	962	(336)	(54)	572

	Deferred tax liabilities (assets) January1, 2022	Recognized in income	Recognized in equity	Deferred tax liabilities (assets) December 31,2022
Resource expenditures	(124)	14	—	(110)
Financing costs	(55)	13	—	(42)
Long-term incentive plan	(232)	(101)	6	(327)
Seismic data library	983	(240)	—	743
	572	(314)	6	264

(D) RECONCILIATION OF EFFECTIVE TAX RATE

Income tax expense differs from the amount that would be computed by applying the basic combined federal and provincial statutory income tax rate to earnings before income taxes. The reasons for the differences are as follows:

Years ended December 31,	**2022**	2021
Earnings (loss) before income tax	(8,135)	30,181
Combined federal and provincial income tax rate	**23%**	23%
Expected income tax expense	(1,871)	6,942
Effects of difference:		
Non-deductible expenses	16	6
Change in valuation allowance	(18)	(17)
Scientific research and experimental development investment tax credits	(105)	—
Permanent difference related to the seismic data library acquired in January 2019	1,834	1,824
Permanent difference related to IFRS 16, Leases	(84)	(88)
Actual income tax expense (recovery)	(228)	8,667

10. SHARE CAPITAL

(A) SHARE CAPITAL

The Company's authorized share capital consists of an unlimited number of common and an unlimited number of preferred shares, issuable in series. No preferred shares have been issued. All common shares are entitled to receive dividends as declared and are entitled to one vote per share at Company meetings.

On November 14, 2022, the Company announced the renewal of its NCIB. The Company may purchase, for cancellation, up to a maximum of 3,070,659 common shares, equal to 10 percent of the public float of 30,706,598 common shares as at November 10, 2022. The Company is also limited under the NCIB to purchasing no more than 4,248 common shares on any given day, subject to the block purchase exemption under the TSX rules. The NCIB will continue until November 15, 2023. Purchases will be made on the open market through the TSX or alternative platforms at the market price of such shares. All shares purchased under the NCIB will be cancelled.

During the year ended December 31, 2022 the Company purchased for cancellation 157,848 common shares pursuant to its NCIB at a weighted average price of $1.96 per share, including brokerage fees, for a total cost of $309,000. The total cost paid, including fees, was first charged to share capital to the extent of the average carrying value of the common shares purchased and the excess of $90,000 was charged to the deficit.

(B) DIVIDENDS

On February 17, 2022, the Company approved a quarterly dividend of $0.0125 per share. The dividend totalling $672,000 was paid on March 21, 2022 to shareholders of record at the close of business on March 14, 2022.

On April 20, 2022, the Company approved a quarterly dividend of $0.0125 per share. The dividend totalling $672,000 was paid on May 24, 2022 to shareholders of record at the close of business on May 16, 2022.

On July 20, 2022, the Company approved a quarterly dividend of $0.0125 per share. The dividend totalling $671,000 was paid on August 23, 2022 to shareholders of record at the close of business on August 15, 2022.

On October 25, 2022, the Company declared a quarterly dividend of $0.0125 per share. The dividend totalling $670,000 was paid on November 22, 2022 to shareholders of record at the close of business on November 14, 2022.

11. SHARE-BASED PAYMENTS

The Company's LTIP for employees, officers and Directors, as stated above, is designed to align the Company's long-term incentive compensation with its performance and to increase individual share ownership.

The LTIP awards consist of RSUs and PSUs, with Directors being granted RSUs only. Upon vesting, each RSU and PSU entitles the holder to one common share of the Company. RSUs and PSUs have accompanying dividend-equivalent rights and, therefore, additional RSUs and PSUs are issued to reflect dividends declared, if applicable, on the common shares.

In determining the amount of equity-settled share-based compensation related to PSUs, management makes estimates about future results and vesting criteria. It is reasonably possible that future outcomes could differ from the estimates, which are based on current knowledge, and require a material adjustment to the share-based compensation expense recorded in future periods. The impact of any change in the number of PSUs expected to vest is recognized in the period the estimate is revised.

On March 31, 2022, 200,896 RSUs and 258,509 PSUs were eligible to vest. The Company's performance in 2021 met the predetermined minimum performance benchmarks and, consequently, 9.5 percent or 24,540 PSUs vested on March 31, 2022. RSUs vest automatically based upon time and, consequently, all of the eligible RSUs vested automatically on March 31, 2022.

To satisfy its obligation, in April 2022 the Company provided $310,000 to the plan's trustee to purchase common shares on the open market for the total after-tax number of cash- and equity-settled RSUs that vested on March 31, 2022. The related payroll taxes of $219,000 were paid in the second quarter to settle the accrued cash-settled portion of the share-based payment liabilities.

During the year ended December 31, 2022, the Company recognized $972,000 (year ended December 31, 2021 –$727,000) in compensation expense related to the LTIP in salaries, internal commissions and benefits on the consolidated statement of comprehensive earnings. The equity-settled portion was $572,000 (2021 – $311,000).

At December 31, 2022, the obligation related to the cash-settled portion of the LTIP was $629,000 (December 31, 2021 – $449,000) with $312,000 (December 31, 2021 – $193,000) included in accounts payable and accrued liabilities and $317,000 (December 31, 2021 – $256,000) included in other long-term payable.

The following summarizes activity in the Company's LTIP during the years ended December 31, 2022 and 2021:

RSUs	**2022**	2021
Outstanding, January 1	**844,713**	692,140
Vested and exercised	**(200,896)**	(161,805)
Granted	**562,954**	325,376
Reinvested	**27,121**	18,231
Cancelled or forfeited	**(19,317)**	(29,229)
Outstanding, December 31	**1,214,575**	844,713

PSUs	**2022**	2021
Outstanding, January 1	**1,079,222**	876,973
Granted	**374,210**	385,938
Reinvested	**28,336**	23,292
Cancelled or forfeited	**(272,619)**	(206,981)
Outstanding, December 31	**1,209,149**	1,079,222

The Company's performance in 2022 did not meet the minimum predetermined performance benchmarks and, consequently, none of the PSUs will vest on March 31, 2023. RSUs vest automatically based upon time and, consequently, RSUs eligible to vest on March 31, 2023 will vest on that date.

12. EARNINGS (LOSS) PER SHARE

(A) BASIC EARNINGS (LOSS) PER SHARE

The calculation of basic earnings per share at December 31, 2022 was based on the net loss attributable to common shareholders of $7.9 million for the year ended December 31, 2022 (year ended December 31, 2021 – net earnings of $21.5 million) and a weighted average number of common shares of 53,703,039 (2021 – 53,792,984).

	2022	2021
Common shares outstanding, January 1	**53,784,717**	53,793,317
Effect of shares issued, purchased and cancelled	**(81,678)**	(333)
Weighted average number of common shares for year ended December 31	**53,703,039**	53,792,984

(B) DILUTED EARNINGS PER SHARE:

The Company does not have any dilutive securities.

13. SALARIES, INTERNAL COMMISSIONS AND BENEFITS

Years ended December 31,	**Note**	**2022**	2021
Salaries and benefits		**2,949**	2,153
Internal commissions		**120**	563
Registered retirement savings plan contributions		**137**	135
Short-term incentives		**292**	1,035
Long-term incentives	**11**	**972**	727
Total salaries, internal commissions and benefits		**4,470**	4,613

In 2021, the Company benefited from the Canada Emergency Wage Subsidy (CEWS), a federal government COVID-19-related financial relief program, in the amount of $312,000. The Company's reported expenses for salaries and benefits are net of these amounts.

14. OTHER SELLING, GENERAL AND ADMINISTRATIVE COSTS

Years ended December 31,	**2022**	2021
External commissions	**44**	25
Occupancy cost and other leases	**815**	244
Office and general cost	**407**	272
Information technology	**332**	247
Reprocessing and data storage	**292**	168
Directors' fees and corporate costs	**410**	356
Professional fees	**470**	593
Bad debt expense	**295**	—
Total other selling, general and administrative costs	**3,065**	1,905

In 2021, the Company benefited from the Canada Emergency Rent Subsidy (CERS), a federal government COVID-19-related financial relief program, in the amount of $315,000. The Company's reported occupancy cost and other leases are net of these amounts.

The bad debt expense is related to one overdue account. Management recognizes that this account represents a collection risk and has recorded an allowance for impairment for the full balance of the account.

15. FINANCING EXPENSES

Years ended December 31,	Note	2022	2021
Interest expense		**6**	1,513
Standby fees		**112**	115
Deferred financing fees amortization		**68**	216
Lease liabilities interest expense	7	**12**	45
Total financing expense		**198**	1,889

The interest expense includes the interest related to the revolving credit facility and the subordinated debt.

16. NET CHANGE IN NON-CASH OPERATING WORKING CAPITAL

Years ended December 31,	2022	2021
Trade and other receivables	**13,942**	(7,503)
Prepaid expenses	**(67)**	(115)
Long-term receivable	**—**	1,140
Accounts payable and accrued liabilities	**(1,516)**	1,599
Deferred revenue	**—**	(105)
Other long-term payable	**61**	174
Others	**9**	292
Net change in non-cash operating working capital	**12,429**	(4,518)

17. FINANCIAL INSTRUMENTS

TThe Company's risk management policy objectives include the long-term management of the Company's business activities and, wherever possible, mitigation of the associated business risks. The Company has exposure to the following risks from its use of financial instruments:

- Credit risk;
- Liquidity risk; and
- Market risk.

(A) RISK MANAGEMENT

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework.

The Company's risk management policies are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. The Company, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Audit and Risk Committee oversees how management monitors compliance with the Company's risk management policies and procedures, and reviews the adequacy of the risk management framework in relation to the risks faced by the Company. The Committee conducts reviews of risk management controls and procedures, the results of which are reported to the Board of Directors.

(B) CREDIT RISK

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's accounts receivable.

The Company is exposed to credit risk in connection with data sales and participation surveys with its customers. The Company's exposure to credit risk is influenced mainly by each customer's individual characteristics. The nature of the Company's customer base, including the default risk of the industry in which customers operate, has an influence on credit risk. As the Company operates to a large extent in the oil and natural gas industry, nearly all of the trade receivables relate to customers from this industry.

The effective monitoring and control of credit risk is a core competency of the Company. Each new customer is analyzed individually for creditworthiness, including credit reference checks, before payment and delivery terms and conditions such as credit limits are offered. Customer accounts are monitored and accounts receivable aging is regularly reviewed. Certain customers have signed agreements with the Company that provide for extended payment terms. The Company's credit risk increases in these arrangements due to their longer time-frame. The risk is mitigated by attempting to limit these arrangements to major oil and natural gas companies which have long operating histories and adequate resources to fulfill their commitments.

The majority of the Company's customers have been doing business with the Company for many years, and insignificant losses have occurred in the past. The Company does not require customers to provide collateral.

EXPOSURE TO CREDIT RISK

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was the gross value of accounts receivable of $1.4 million. The cash and cash equivalent are also subject to credit risk. The risk is mitigated by holding cash with a large chartered bank. The Company has a significant concentration of customers in the oil and natural gas industry, with the majority located in Alberta. At December 31, 2022, 88 percent of total accounts receivable were due from four customers. For the year ended December 31, 2022, approximately 56 percent of the Company's data library sales were attributable to seven customers.

The aging of trade receivables at the reporting date was:

	2022		2021	
	Gross	Impairment	Gross	Impairment
Current	588	—	14,772	—
Past due 31-60 days	518	18	56	—
Past due 61-90 days	31	31	48	—
More than 90 days	261	261	154	—
Total	1,398	310	15,030	—

As explained above the impairment is related to one overdue account.

Accounts receivable over 90 days are monitored and assessed for impairment. Those accounts are evaluated on a case-by-case basis using information received from the customer and market information.

As of February 16, 2023, the Company has collected $788,000 or 56 percent of the December 31, 2022 gross value of trade and other receivables and believes that all remaining accounts receivable are collectible, based on historical payment behaviour and extensive analysis of customers' underlying credit ratings.

(C) LIQUIDITY RISK

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled in cash or another financial asset. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Company regularly monitors its cash flow and funding options available in the capital markets, as well as trends in the availability and costs of such funding, with a view to maintaining financial flexibility and limiting repayment risks. The Company does not believe that it will encounter difficulty in meeting its financial obligations. Consolidated cash flow

information, including a projection for the remainder of the year where applicable, is presented quarterly to the Audit and Risk Committee, which aids in planning to ensure that the Company has sufficient cash to meet expected operational expenses, including the servicing of financial obligations.

The Company has working capital of $6.8 million at December 31, 2022 in addition to $25.0 million available for future draws on its revolving credit facility.

The following are the contractual maturities of financial liabilities at December 31, 2022:

	Carrying amounts	2023	2024	2025	2026 and thereafter
Accounts payable	1,077	1,077	—	—	—
Leases	1,567	270	300	300	697
Long-term payable	317	—	317	—	—
Total	**2,961**	**1,347**	**617**	**300**	**697**

As stated above, on October 20, 2022 the Company entered into a lease agreement for office space for the period of April 2023 to June 2028.

(D) MARKET RISK

Market risk is the risk that changes in market prices will affect the Company's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

(I) COMMODITY PRICE RISK

The Company is not directly exposed to commodity price risk as it does not have any contracts that are directly based on commodity prices. A change in commodity prices, specifically oil and natural gas prices, could have a material impact on the Company's customers' cash flows and could therefore affect the level of seismic data library sales and participation surveys. Commodity prices are affected by many factors, including supply and demand. The Company has not entered into any commodity price risk contracts. Given that this is an indirect influence, the financial impact on the Company of changing oil and natural gas prices is not reasonably determinable.

(II) INTEREST RATE RISK

The Company's interest rate risk exposure is mainly related to long-term debt. The Company is exposed to interest rate cash-flow risk on its floating-rate long-term debt as described in note 8. Changes in market interest rates will cause fluctuations in future interest payments.

The Company earns minimal interest income on its cash balances.

A change of 100 basis points in interest rates for the year ended December 31, 2022 would not have changed equity and earnings or loss because the balance of the long-term debt through 2022 was nil (2021 – $80,000), assuming all other variables remained constant.

(E) FAIR VALUES

The fair values of cash and cash equivalents, accounts receivable (short and long-term) and accounts payable (short and long-term) approximate their carrying amount largely due to the short-term maturities of these instruments.

18. CAPITAL MANAGEMENT

The Company considers its capital structure to include shareholders' equity and long-term debt.

Years ended December 31,	2022	2021
Shareholder's equity	**33,496**	44,141
Long-term debt	—	2,265
Total capitalization	**33,496**	46,406

The Company's primary objective when managing capital is to preserve its ability to execute its long-term growth plan of significantly increasing the size of the seismic data library, so that it can maximize revenue and, ultimately, shareholder value. Historically, sales generated from the seismic data library provided the Company with high levels of cash, and its most significant expense is non-cash amortization. Consequently, the Company has been able to repay long-term debt and continue to fund data library growth.

The Company requires flexibility in managing the capital structure so that it can take advantage of opportunities to raise additional capital as opportunities for data acquisitions or participation surveys arise. The Company uses a combination of debt and equity and relies on key internal measures such as the long-term debt to trailing-12-month EBITDA ratio and the long-term debt to equity ratio to forecast and structure its capital requirements. From time to time the Company purchases its own shares on the market through its NCIB, the timing of which depends on a number of factors including competing capital allocation opportunities under review, market volume activity and market prices.

EBITDA is defined by the Company as earnings before interest, taxes, depreciation and amortization. EBITDA is a measure that does not have any standardized meaning prescribed by IFRS or Canadian generally accepted accounting principles and is therefore unlikely to be comparable to similar measures presented by other issuers.

The long-term debt to trailing-12-month EBITDA ratio is calculated as long-term debt at the end of the period, divided by EBITDA for the previous 12 months. This measure is substantially the same as the total debt to adjusted EBITDA ratio covenant in the Company's credit facility, with the exception that the covenant calculation under the credit facility allows for the addition of normalized cash flow from acquisitions for the months during the trailing 12 months that the Company did not yet own the acquired data.

The total long-term debt to annual EBITDA ratio is calculated as follows:

Years ended December 31,	**2022**	2021
Total long-term debt at year-end	—	2,265
Divided by:		
Net earnings (loss)	**(7,907)**	21,514
Plus:		
Net financing costs	**95**	1,827
Income tax expense	**(228)**	8,667
Depreciation	**257**	614
Amortization of seismic data library	**9,818**	10,010
Annual EBITDA	**2,035**	42,632
Total long-term debt to annual EBITDA ratio	—	0.05:1

The total long-term debt to equity ratio is calculated using the total long-term debt balance, net of debt financing costs, divided by total equity, as follows:

Years ended December 31,	**2022**	2021
Total long-term debt, net debt of financing costs	—	2,265
Divide by:total equity	**33,496**	44,141
Total long-term debt to annual EBITDA ratio	**0.0:1**	0.05:1

As discussed in note 8, the Company is subject to debt covenants on its revolving credit facility. The Company was in compliance with all covenants at December 31, 2022 and 2021.

There were no changes in the Company's approach to capital management during the year.

19. OTHER COMMITMENT

The following table represents minimum payments under seismic data services contracts:

	2023	2024	2025	2026	2027 and thereafter
Seismic data services	168	—	—	—	—

Obligations for seismic data services contracts include geophysical services such as data storage.

20. RELATED-PARTY TRANSACTIONS

The Company has a related-party relationship with its Board of Directors and with key management personnel.

(A) KEY MANAGEMENT PERSONNEL COMPENSATION

In addition to their salaries, the executive officers participate in the Company's short-term incentive cash-bonus plan and LTIP (refer to note 11). Both the short-term incentive plan and LTIP amounts listed in the table are amounts paid in 2022 for performance related to 2021.

Key management personnel compensation comprised:

Years ended December 31,	2022	2021
Fixed salary	897	822
Short-term employee benefits	67	66
Short-term incentive plan	700	—
LTIP	246	114
	1,910	1,002

(B) TRANSACTIONS WITH DIRECTORS

Directors also participate in the Company's LTIP (refer to note 11).

The remuneration of the Directors is as follows:

Years ended December 31,	2022	2021
Directors' fees	208	180
LTIP	77	67
	285	247

21. SUBSEQUENT EVENT

On February 16, 2023, the Company declared a quarterly dividend of $0.0125 per common share to be paid on March 20, 2023 to shareholders of record at the close of business on March 13, 2023.

Corporate Information

Pulse is a market leader in the acquisition, marketing and licensing of 2D and 3D seismic data to the western Canadian energy sector. Pulse owns the largest licensable seismic data library in Canada, currently consisting of approximately 65,310 net square kilometres of 3D seismic and 829,207 net kilometres of 2D seismic. The library extensively covers the Western Canada Sedimentary Basin where most of Canada's oil and natural gas exploration and development occur.

OFFICERS

Neal Coleman
President and CEO

Pamela Wicks
Vice President Finance and CFO

Trevor Meier
Vice President, Sales and Marketing

Catherine Samuel
Corporate Secretary

BOARD OF DIRECTORS

Robert Robotti (1) (2) (3)
Chair

Paul Crilly (1) (3)
Director

Dallas Droppo (1) (2) (3)
Director

Grant Grimsrud (2) (4)
Director

Melanie Westergaard (1) (4)
Director

Neal Coleman (4)
Director

(1) Member of the Audit and Risk Committee

(2) Member of the Compensation Committee

(3) Member of the Corporate Governance and Nominating Committee

(4) Member of the Environment, Social, Governance and Health Committee

BANKERS

The Toronto-Dominion Bank
Calgary, Alberta

REGISTRAR AND TRANSFER AGENT

Computershare Trust Company of Canada
Calgary, Alberta

SOLICITORS

McCarthy Tétrault LLP
Calgary, Alberta

AUDITORS

MNP LLP
Calgary, Alberta

STOCK EXCHANGE LISTING

TSX: PSD
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For the three month and year ended December 31, 2022

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