

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended **June 30, 2024**
or

TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number **0-29185**

QS ENERGY, INC.

(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of
incorporation or organization)

52-2088326
(I.R.S. Employer
Identification No.)

23902 FM 2978
Tomball, TX 77375
(Address, including zip code, of principal executive offices)

(775) 300-7647
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
None	N/A

Check whether the Registrant (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer <input type="checkbox"/>	Accelerated filer <input type="checkbox"/>
Non-accelerated filer <input checked="" type="checkbox"/>	Smaller reporting company <input checked="" type="checkbox"/>
Emerging growth company <input type="checkbox"/>	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The number of shares of the Registrant's Common Stock outstanding as of August 5, 2024 was 405,898,799.

Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements. These forward-looking statements include predictions and statements regarding our future:

- revenues and profits;
- customers;
- research and development expenses and efforts;
- scientific and other third-party test results;
- sales and marketing expenses and efforts;
- liquidity and sufficiency of existing cash;
- technology and products; and
- the effect of recent accounting pronouncements on our financial condition and results of operations.

You can identify these and other forward-looking statements by the use of words such as “may,” “will,” “expects,” “anticipates,” “believes,” “estimates,” “intends,” “project,” “potential,” “forecast” “continues,” “strategies,” or the negative of such terms, or other comparable terminology, and also include statements concerning plans, objectives, goals, strategies and future events or performance.

Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth below under the heading “Risk Factors.” We cannot assure you that we will achieve or accomplish our expectations, beliefs or projections. All forward-looking statements included in this document are based on information available to us on the date hereof. We assume no obligation to update any forward-looking statements.

QS ENERGY, INC.
FORM 10-Q

INDEX

<u>PART I – FINANCIAL INFORMATION</u>	4
<u>Item 1. Unaudited Condensed Consolidated Financial Statements</u>	4
<u>Condensed Consolidated Balance Sheets</u>	4
<u>Condensed Consolidated Statements of Operations, Unaudited</u>	5
<u>Condensed Consolidated Statement of Stockholders' Deficit, Unaudited</u>	6
<u>Condensed Consolidated Statements of Cash Flows, Unaudited</u>	8
<u>Notes to Condensed Consolidated Financial Statements, Unaudited</u>	9
<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	16
<u>Item 3. Quantitative and Qualitative Disclosure about Market Risk</u>	26
<u>Item 4. Controls and Procedures</u>	26
<u>PART II – OTHER INFORMATION</u>	27
<u>Item 1. Legal Proceedings</u>	27
<u>Item 1A. Risk Factors</u>	27
<u>Item 2. Unregistered Sales of Equity Securities and Use of Proceeds</u>	27
<u>Item 3. Defaults Upon Senior Securities</u>	27
<u>Item 4. Mine Safety Disclosures</u>	27
<u>Item 5. Other Information</u>	27
<u>Item 6. Exhibits</u>	27
<u>SIGNATURES</u>	28

PART I – FINANCIAL INFORMATION

Item 1. Unaudited Condensed Consolidated Financial Statements

**QS ENERGY, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS**

	June 30, 2024 (unaudited)	December 31, 2023
ASSETS		
Current assets:		
Cash	\$ 132,000	\$ 70,000
Prepaid expenses	12,000	12,000
Total current assets	<u>144,000</u>	<u>82,000</u>
Property and equipment, net of accumulated depreciation of \$101,000 and \$99,000 at June 30, 2024 and December 31, 2023, respectively	1,000	2,000
Total assets	<u><u>\$ 145,000</u></u>	<u><u>\$ 84,000</u></u>
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable-license agreements - past due	\$ 2,315,000	\$ 2,198,000
Accounts payable and accrued expenses	1,032,000	972,000
Convertible notes payable, net of discounts of \$74,000 and \$25,000, respectively; includes \$2,200,000 and \$2,022,000, respectively, past due	2,302,000	2,101,000
PPP loan payable	38,000	57,000
Total current liabilities	<u>5,687,000</u>	<u>5,328,000</u>
Total liabilities	<u>5,687,000</u>	<u>5,328,000</u>
Commitments and contingencies	–	–
Stockholders' deficit		
Common stock, \$0.001 par value: 500,000,000 shares authorized, 402,081,800 and 392,586,471 shares issued and outstanding at June 30, 2024 and December 31, 2023, respectively	402,082	392,587
Additional paid-in capital	120,203,918	119,729,413
Accumulated deficit	<u>(126,148,000)</u>	<u>(125,366,000)</u>
Total stockholders' deficit	<u>(5,542,000)</u>	<u>(5,244,000)</u>
Total liabilities and stockholders' deficit	<u><u>\$ 145,000</u></u>	<u><u>\$ 84,000</u></u>

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS, UNAUDITED

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Revenues	\$ —	\$ —	\$ —	\$ —
Costs and Expenses				
Operating expenses	201,000	158,000	527,000	344,000
Research and development expenses	48,000	47,000	95,000	101,000
Loss from operations	(249,000)	(205,000)	(622,000)	(445,000)
Other income (expense)				
Gain on partial forgiveness of PPP note payable	—	—	—	—
Interest and financing expense	(84,000)	(79,000)	(160,000)	(173,000)
Net Loss	<u>\$ (333,000)</u>	<u>\$ (284,000)</u>	<u>\$ (782,000)</u>	<u>\$ (618,000)</u>
Net loss per common share, basic and diluted	<u>\$ (0.00)</u>	<u>\$ (0.00)</u>	<u>\$ (0.00)</u>	<u>\$ (0.00)</u>
Weighted average common shares outstanding, basic and diluted	<u>398,506,532</u>	<u>385,223,010</u>	<u>395,939,821</u>	<u>381,838,227</u>

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIT, UNAUDITED
FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2024

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount			
Balance, April 1, 2024	397,931,803	\$ 397,932	\$ 120,035,068	\$ (125,815,000)	\$ (5,382,000)
Common stock issued on conversion of notes payable	3,850,000	3,850	46,150	-	50,000
Warrants issued with convertible notes	-	-	105,000	-	105,000
Common stock issued upon exercise of warrants	299,997	300	13,700	-	14,000
Fair value of warrants issued as for services	-	-	4,000	-	4,000
Net loss	-	-	-	(333,000)	(333,000)
Balance, June 30, 2024	<u>402,081,800</u>	<u>\$ 402,082</u>	<u>\$ 120,203,918</u>	<u>\$ (126,148,000)</u>	<u>\$ (5,542,000)</u>

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount			
Balance, January 1, 2024	392,586,471	\$ 392,587	\$ 119,729,413	\$ (125,366,000)	\$ (5,244,000)
Common stock issued on conversion of notes payable	7,062,000	7,062	119,938	-	127,000
Warrants issued with convertible notes	-	-	190,000	-	190,000
Common stock issued upon exercise of warrants	433,329	433	17,567	-	18,000
Fair value of warrants issued as compensation	-	-	9,000	-	9,000
Common stock issued for services	2,000,000	2,000	138,000	-	140,000
Net loss	-	-	-	(782,000)	(782,000)
Balance, June 30, 2024	<u>402,081,800</u>	<u>\$ 402,082</u>	<u>\$ 120,203,918</u>	<u>\$ (126,148,000)</u>	<u>\$ (5,542,000)</u>

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIT, UNAUDITED
FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2023

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount			
Balance, April 1, 2023	384,537,426	\$ 384,538	\$ 119,306,462	\$ (124,476,000)	\$ (4,785,000)
Common stock issued on conversion of notes payable	1,148,664	1,149	24,851	-	26,000
Relative fair value of warrants issued with convertible notes	-	-	56,000	-	56,000
Common stock issued on exercise of warrants	133,332	134	2,866	-	3,000
Fair value of options and warrants issued as compensation	-	-	5,000	-	5,000
Net loss	-	-	-	(284,000)	(284,000)
Balance, June 30, 2023	<u>385,819,422</u>	<u>\$ 385,821</u>	<u>\$ 119,395,179</u>	<u>\$ (124,760,000)</u>	<u>\$ (4,979,000)</u>

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount			
Balance, January 1, 2023	376,074,096	\$ 376,075	\$ 119,075,925	\$ (124,142,000)	\$ (4,690,000)
Common stock issued on conversion of notes payable	8,628,664	8,629	161,371	-	170,000
Relative fair value of warrants issued with convertible notes	-	-	103,000	-	103,000
Common stock issued on exercise of warrants	1,116,662	1,117	40,883	-	42,000
Fair value of options and warrants issued as compensation	-	-	14,000	-	14,000
Net loss	-	-	-	(618,000)	(618,000)
Balance, June 30, 2023	<u>385,819,422</u>	<u>\$ 385,821</u>	<u>\$ 119,395,179</u>	<u>\$ (124,760,000)</u>	<u>\$ (4,979,000)</u>

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, UNAUDITED

	Six months ended June 30,	
	2024	2023
Cash flows from Operating Activities		
Net loss	\$ (782,000)	\$ (618,000)
Adjustments to reconcile net loss to net cash used in operating activities:		
Fair value of warrants issued as compensation	9,000	14,000
Fair value of common stock issued for services	140,000	–
Amortization of debt discount	30,000	65,000
Accrued interest expense	106,000	84,000
Depreciation and amortization	1,000	2,000
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	–	16,000
Accounts payable and accrued expenses	60,000	15,000
Accounts payable – license agreements	117,000	118,000
Operating lease liabilities	–	–
Net cash used in operating activities	<u>(319,000)</u>	<u>(304,000)</u>
Cash flows from investing activities		
Purchase of property and equipment	–	–
Net cash used in investing activities	<u>–</u>	<u>–</u>
Cash flows from financing activities		
Net proceeds from exercise of warrants	18,000	42,000
Net proceeds from issuance of convertible notes and warrants	382,000	210,000
Principal payment on PPP loan payable	(19,000)	(9,000)
Net cash provided by financing activities	<u>381,000</u>	<u>243,000</u>
Net increase (decrease) in cash	62,000	(61,000)
Cash, beginning of period	70,000	133,000
Cash, end of period	<u>\$ 132,000</u>	<u>\$ 72,000</u>
Supplemental disclosures of cash flow information		
Cash paid during the year for:		
Interest	\$ –	\$ –
Income Taxes	\$ –	\$ 1,600
Non-cash investing and financing activities		
Conversion of convertible debentures to common stock	\$ 127,000	\$ 170,000
Relative fair value of warrants issued with convertible notes	\$ 190,000	\$ 103,000

See notes to condensed consolidated financial statements.

QS ENERGY, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, UNAUDITED
THREE AND SIX MONTHS ENDED JUNE 30, 2024 AND 2023

1. Description of Business

QS Energy, Inc. (“QS Energy”, “Company”) was incorporated on February 18, 1998, as a Nevada Corporation under the name Mandalay Capital Corporation. The Company changed its name to Save the World Air, Inc. on February 11, 1999 and to QS Energy, Inc. on August 11, 2015. The Company’s common stock is quoted under the symbol “QSEP” on the Over-the-Counter Bulletin Board (Pink Sheets). More information including the Company’s fact sheet, logos, media articles, and update information are available at our corporate website, www.qsenergy.com.

QS Energy develops and is seeking to commercialize energy efficiency technologies that assist in meeting increasing global energy demands, improving the economics of oil extraction and transport, and reducing greenhouse gas emissions. The Company’s intellectual properties include a portfolio of domestic and international patents and patents pending, a substantial portion of which have been developed in conjunction with and exclusively licensed from Temple University of Philadelphia, PA (“Temple”). QS Energy’s primary technology is called Applied Oil Technology (AOT), a commercial-grade crude oil pipeline transportation flow-assurance product. AOT is engineered specifically to reduce pipeline pressure loss, increase pipeline flow rate and capacity, and reduce shippers’ reliance on diluents and drag reducing agents to meet pipeline maximum viscosity requirements. AOT is a 100% solid-state system that has shown to reduce crude oil viscosity by applying a high intensity electrical field to crude oil feedstock while in transit. The AOT product is seeking to transition from the testing, research and development stage to initial production for continued testing in advance of our goal of seeking acceptance and adoption by the midstream pipeline marketplace.

2. Summary of Significant Accounting Policies

Going Concern

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the accompanying consolidated financial statements, during the six-months ended June 30, 2024, the Company incurred a net loss of \$782,000, used cash in operations of \$319,000 and had a stockholders’ deficit of \$5,542,000 as of that date. In addition, as of June 30, 2024, 42 convertible notes payable with an aggregate principal balance and accrued interest of \$2,200,000 and certain obligations to a former officer are past due. These factors raise substantial doubt about the Company’s ability to continue as a going concern. In addition, the Company’s independent registered public accounting firm, in its report on the Company’s December 31, 2023 financial statements, has raised substantial doubt about the Company’s ability to continue as a going concern. The ability of the Company to continue as a going concern is dependent upon the Company’s ability to raise additional funds and implement its business plan. The financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

At June 30, 2024, the Company had cash on hand in the amount of \$132,000. Management estimates that the current funds on hand will be sufficient to continue operations through September 2024. Management is currently seeking additional funds, primarily through the issuance of debt and equity securities for cash to operate our business, including without limitation the expenses it will incur in connection with the license agreements with Temple; costs associated with product development and commercialization of the AOT technologies; costs to manufacture and ship the products; costs to design and implement an effective system of internal controls and disclosure controls and procedures; costs of maintaining our status as a public company, including, without limitation, legal and accounting fees and costs associated therewith, by filing periodic reports with the SEC and fees and costs required to protect our intellectual property. In addition, as discussed below, the Company has substantial contractual commitments, including without limitation salaries to our executive officers pursuant to employment agreements, certain payments to a former officer and consulting fees, during the remainder of 2024 and beyond.

No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing or cause substantial dilution for our stockholders in case of equity financing.

Basis of Presentation

The accompanying condensed consolidated financial statements are unaudited. These unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and applicable rules and regulations of the Securities and Exchange Commission (“SEC”) regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. Accordingly, these interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on April 9, 2024. The condensed consolidated balance sheet as of December 31, 2023, included herein was derived from the audited consolidated financial statements as of that date, but does not include all disclosures, including notes, required by GAAP.

In the opinion of management, the accompanying unaudited condensed consolidated financial statements contain all adjustments necessary to fairly present the Company’s financial position and results of operations for the interim periods reflected. Except as noted, all adjustments contained herein are of a normal recurring nature. Results of operations for the fiscal periods presented herein are not necessarily indicative of the full fiscal year-end results.

The accompanying consolidated financial statements of QS Energy Inc. include the accounts of QS Energy Inc. (the Parent) and its wholly owned subsidiaries, QS Energy Pool, Inc. and STWA Asia Pte. Limited. Intercompany transactions and balances have been eliminated in consolidation.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates include those related to accruals for potential liabilities, assumptions used in valuing equity instruments issued for financing and services and realization of deferred tax assets, among others. Actual results could differ from those estimates.

Basic and Diluted Income (Loss) Per Share

Our computation of earnings per share (“EPS”) includes basic and diluted EPS. Basic EPS is measured as the income (loss) available to common stockholders divided by the weighted average common shares outstanding for the period. Diluted income (loss) per share reflects the potential dilution, using the treasury stock method, that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that then shared in the income (loss) of the Company as if they had been converted at the beginning of the periods presented, or issuance date, if later.

At June 30, 2024 and 2023, we excluded the following dilutive shares as their effect would have been anti-dilutive.

	June 30, 2024	June 30, 2023
Options	25,294,103	26,057,601
Warrants	21,015,411	23,985,520
Common stock issuable upon conversion of notes payable	40,727,124	32,379,667
Total	<u>87,036,638</u>	<u>82,422,788</u>

Stock-Based Compensation

The Company periodically issues stock options and restricted stock awards to employees and non-employees in non-capital raising transactions for services and for financing costs. Stock option grants, which are generally time or performance vested, are measured at the grant date fair value and depending on the conditions associated with the vesting of the award, compensation cost is recognized on a straight-line or graded basis over the vesting period. Recognition of compensation expense for non-employees is in the same period and manner as if the Company had paid cash for the services. The fair value of stock options granted is estimated using the Black-Scholes option-pricing model, which uses certain assumptions related to risk-free interest rates, expected volatility, expected life, and future dividends. The assumptions used in the Black-Scholes option pricing model could materially affect compensation expense recorded in future periods.

Research and Development Costs

Research and development costs are expensed as incurred and consist primarily of fees paid to consultants and outside service providers, and other expenses relating to the acquisition, design, development and testing of the Company's products. Certain research and development activities are incurred under contract. In those instances, research and development costs are charged to operations ratably over the life of the underlying contracts, unless the achievement of milestones, the completion of contracted work, or other information indicates that a different expensing schedule is more appropriate. Payments made pursuant to research and development contracts are initially recorded as advances on research and development contract services in the Company's consolidated balance sheet and then charged to research and development costs in the Company's consolidated statement of operations as those contract services are performed.

Patent Costs

Patent costs consist of patent-related legal and filing fees. Due to the uncertainty associated with the successful development of our AOT and Joule Heat products, all patent costs are expensed as incurred. During the six-month periods ended June 30, 2024 and 2023, patent costs were \$31,000 and \$3,000, respectively, which is included as part of operating expenses in the accompanying consolidated statements of operations.

Recent Accounting Pronouncements

Recent accounting pronouncements and guidance issued by the FASB, including its Emerging Issues Task Force, the American Institute of Certified Public Accountants, and the Securities and Exchange Commission did not or are not believed by management to have a material impact on the Company's present or future consolidated financial statement presentation or disclosures.

3. Accounts Payable and Accrued Expenses

As of June 30, 2024 and December 31, 2023, the Company owed \$197,000 and \$197,000, respectively, pursuant to a separation agreement with a former executive officer effective April 1, 2017 as amended by letter agreements dated effective August 16, 2018 and March 31, 2019, which have been included as part of accounts payable and accrued expenses on the accompanying condensed consolidated balance sheet. The payments are to be made at \$10,000 per month. During the six months ended June 30, 2024, the Company made no payments.

4. Convertible Notes Payable

	June 30, 2024 (unaudited)	December 31, 2023
Convertible notes (includes \$1,300,000 and \$1,228,000 past due)	\$ 1,476,000	\$ 1,332,000
Accrued interest (includes \$900,000 and \$794,000 past due)	900,000	794,000
Subtotal, including \$2,200,000 and \$2,022,000 past due, respectively	2,376,000	2,265,000
Convertible note discount	(74,000)	(25,000)
Balance on convertible notes, net of note discounts	<u>\$ 2,302,000</u>	<u>\$ 2,101,000</u>

Convertible notes payable

As of December 31, 2023, total outstanding notes payable totaled \$1,332,000. During the six-month period ended June 30, 2024, the Company issued convertible promissory notes in the aggregate of \$420,000 for cash proceeds of \$382,000, net of original issue discount (“OID”) of \$38,000. The notes are unsecured, with an 10% OID, mature in twelve months from issuance, and are convertible into 11,337,700 shares of the Company’s common stock at \$0.03 to \$0.05 per share.

In addition, the Company granted the note holders warrants to purchase 11,337,700 shares of the Company’s common stock with a relative value of \$190,000. The warrants are fully vested, and expire one year from the date of issuance. The Company determined the fair value of the warrants by using a Black-Scholes option pricing model, with the following assumptions: expected term of 1.0 year, stock price of \$0.03 to \$0.08, exercise price of \$0.04 to \$0.07, volatility of 156% to 174%, risk-free rate of 5.03% to 5.09%, and no forfeiture rate.

Also, during the period ended June 30, 2024, convertible notes of \$276,000, net of unamortized discount of \$149,000, were converted into 7,062,000 shares of common stock. At June 30, 2024, total outstanding convertible notes payable totaled \$1,476,000. As of June 30, 2024, convertible notes payable and accrued interest are convertible into approximately 40,727,124 shares of common stock at conversion rates ranging from \$0.02 to \$0.48 per share. As of June 30, 2024, a total of 42 convertible notes and accrued interest in the aggregate of \$2,200,000 have reached maturity and are past due.

Accrued interest

At December 31, 2023, accrued interest on convertible notes payable totaled \$794,000. During the six-month period ended June 30, 2024, accrued interest of \$106,000 was recorded. At June 30, 2024, accrued interest on convertible notes payable totaled \$900,000.

Debt discount

At December 31, 2023, the unamortized debt discount was \$25,000. During the six-month period ended June 30, 2024, debt discount of \$228,000 was recorded for the relative fair value of warrants of \$190,000 and OID of \$38,000, debt discount amortization of \$30,000 was recorded, and \$148,000 of debt discount was removed and included in the carrying amount of related convertible notes payable that were converted into shares of common stock. At June 30, 2024, the unamortized debt discount was \$74,000.

5. PPP loan payable

In June 2020, the Company was granted a loan (the “PPP loan”) for \$151,000 from Cadence Bank, pursuant to the Paycheck Protection Program (the “PPP”) under the CARES Act. The PPP loan is dated June 18, 2020, matures on June 18, 2025, bears interest at a rate of 1% per annum, and is unsecured and guaranteed by the U.S. Small Business Administration (“SBA”). Funds from the PPP loan may only be used for qualifying expenses, including qualifying payroll costs, qualifying group health care benefits, qualifying rent and debt obligations, and qualifying utilities. Management believes the entire loan amount has been used for qualifying expenses and all of the conditions outlined in the PPP loan program were adhered to by the Company. The PPP loan provides for customary events of default including, among other things, payment defaults, breach of representations and warranties, and insolvency events. The Company was in compliance with the terms of the PPP loan as of June 30, 2024. Under the terms of the PPP, certain amounts of the loan may be forgiven if they are used for qualifying expenses. During 2022, the Company received notice that a total of \$63,000 of the PPP loan was forgiven. In addition during 2022, the Company made principal payments on the PPP loan of \$12,000, and at December 31, 2023, the balance of the PPP loan was \$57,000. During the six-month period ended June 30, 2024, the Company made principal payments on the PPP loan of \$19,000, and at June 30, 2024, the balance of the PPP loan was \$38,000.

6. Research and Development

The Company constructs, develops and tests the AOT technologies with internal resources and through the assistance of various third-party entities. Costs incurred and expensed include fees such as license fees, purchase of test equipment, pipeline pumping equipment, crude oil tank batteries, viscometers, SCADA systems, computer equipment, payroll and other related equipment and various logistical expenses for the purposes of evaluating and testing the Company’s AOT prototypes.

Costs incurred for research and development are expensed as incurred. Purchased materials that do not have an alternative future use are also expensed. Furthermore, costs incurred in the construction of prototypes with no certainty of any alternative future use and established commercial uses are also expensed.

For the six-month periods ended June 30, 2024 and 2023 research and development costs were \$95,000 and \$101,000, respectively. For the three-month periods ended June 30, 2024 and 2023 research and development costs were \$48,000 and \$47,000, respectively.

AOT Prototypes

During the periods ended June 30, 2024 and 2023, the Company incurred total expenses of \$1,000 and \$6,000, respectively, in the manufacture and testing of the AOT prototype equipment. These expenses are included in Research and Development expenses on the accompanying condensed consolidated statements of operations.

Temple University Licensing Agreements

On August 1, 2011, the Company and Temple University (“Temple”) entered into two (2) Exclusive License Agreements (collectively, the “License Agreements”) relating to Temple’s patent applications, patents and technical information pertaining to technology associated with an electric and/or magnetic field assisted fuel injector system (the “First Temple License”), and to technology to reduce crude oil viscosity (the “Second Temple License”). The License Agreements are exclusive, and the territory licensed to the Company is worldwide and replace previously issued License Agreements.

Pursuant to the two licensing agreements, the Company paid Temple a non-refundable license maintenance fee of \$300,000 and agreed to pay (i) annual maintenance fees of \$187,500; (ii) royalty fee ranging from 4% up to 7% from revenues generated from the licensing agreements; and (iii) 25% of all revenues generated from sub-licensees to secure or maintain the sub-license or option thereon. The term of the licenses commenced in August 2011 and will expire upon expiration of the patents. The agreements can also be terminated by either party upon notification under terms of the licensing agreements or if the Company ceases the development of the patent or fails to commercialize the patent rights.

Total expenses recognized during each six-month period ended June 30, 2024 and 2023 pursuant to these two License Agreements amounted to \$94,000 and has been reflected in Research and Development expenses on the accompanying condensed consolidated statements of operations. In the six-month periods ended June 30, 2024 and 2023, the Company also recognized penalty interest on past-due balances of \$24,000 and \$24,000, respectively, which is included as part of interest and financing expense in the accompanying condensed consolidated statements of operations.

As of June 30, 2024 and December 31, 2023, total unpaid fees due to Temple pursuant to these agreements are \$2,315,000 and \$2,198,000, respectively, which are included as part of Accounts Payable – license agreements in the accompanying condensed consolidated balance sheets. With regards to the unpaid fees to Temple, a total of \$135,000 are deferred until such time the Company achieves a revenue milestone of \$835,000 or upon termination of the licensing agreements and the remaining \$2,180,000 are deemed past due. The Company is in ongoing discussions with Temple to settle or cure the past due balance.

No revenues were earned from the two License Agreements during the six-month periods ended June 30, 2024 and 2023.

7. Common Stock

During the six months ended June 30, 2024, the Company issued 9,495,329 shares of its common stock as follows:

- The Company issued 7,062,000 shares of its common stock upon the conversion of \$276,000 in convertible notes at \$0.03 to \$0.05 per share, net of unamortized discount of \$149,000.
- The Company issued 433,329 shares of its common stock upon the exercise of warrants at exercise prices ranging from \$0.02 to \$0.06 per share for total proceeds of \$13,000.
- The Company issued 2,000,000 shares of its common stock for services with a fair value of \$140,000 valued at \$0.07 per share.

8. Stock Options and Warrants

The Company periodically issues stock options and warrants to employees and non-employees in capital raising transactions, for services, and for financing costs.

Options

Options vest according to the terms of the specific grant and expire from 2 to 10 years from date of grant. The weighted-average, remaining contractual life of employee and non-employee options outstanding at June 30, 2024 was 3.4 years. Stock option activity for the period January 1, 2024 up to June 30, 2024, was as follows:

	Options	Weighted Avg. Exercise Price
January 1, 2024	25,757,155	\$ 0.14
Granted	–	–
Exercised	–	–
Expired	(463,052)	0.85
June 30, 2024	<u>25,294,103</u>	<u>\$ 0.13</u>

The weighted average exercise prices, remaining contractual lives for options granted, exercisable, and expected to vest as of June 30, 2024 were as follows:

Option Exercise Price Per Share	Outstanding Options			Exercisable Options		
	Shares	Life (Years)	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	
\$0.02 - \$0.24	22,055,551	3.6	\$ 0.10	22,055,551	\$ 0.10	
\$0.25 - \$0.49	3,238,552	2.2	\$ 0.36	3,238,552	\$ 0.36	
	<u>25,294,103</u>	3.4	\$ 0.13	<u>25,294,103</u>	\$ 0.13	

During the six-month periods ended June 30, 2024 and 2023, the Company recognized compensation costs based on the fair value of options that vested of \$0 and \$0 respectively.

As of June 30, 2024, the market price of the Company's stock was \$0.06 per share. At June 30, 2024, the aggregate intrinsic value of the options outstanding at June 30, 2024 was \$115,400.

Warrants

The following table summarizes certain information about the Company's stock purchase warrants activity for the period starting January 1, 2024 up to June 30, 2024.

	Warrants	Weighted Avg. Exercise Price
January 1, 2024	17,953,239	\$ 0.06
Granted	11,537,698	0.04
Exercised	(433,329)	0.06
Expired	(8,042,197)	0.06
June 30, 2024	<u>21,015,411</u>	<u>\$ 0.06</u>

The weighted average exercise prices, remaining contractual lives for warrants granted, exercisable, and expected to vest as of June 30, 2024 were as follows:

Warrant Exercise Price Per Share	Outstanding Warrants			Exercisable Warrants	
	Shares	Life (Years)	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
\$0.02 - \$0.24	21,015,411	0.6	\$ 0.06	20,982,078	\$ 0.06
\$0.50 - \$1.00	—	—	—	—	—
	<u>21,015,411</u>	<u>0.6</u>	<u>\$ 0.06</u>	<u>20,982,078</u>	<u>\$ 0.06</u>

In the six-month period ending June 30, 2024, the Company issued warrants to purchase 199,998 shares of common stock in exchange for services. The warrants are exercisable at a price range of \$0.03 to \$0.07, vesting one month from the date of grant, and expiring two years from the date of grant. Total fair value of these warrants at grant date was \$9,000 using the Black-Scholes Option Pricing model with the following assumptions: life of 2 years; risk free interest rate of 4.39% to 4.97%; volatility of 181% to 188% and dividend yield of 0%. During the six-month period ended June 30, 2024, the Company recognized compensation costs based on the fair value of warrants that vested of \$9,000.

At June 30, 2024, the Company's common stock was \$0.06 per share. At June 30, 2024, the aggregate intrinsic value of warrants outstanding was \$188,000.

In the six-month period ending June 30, 2023, the Company issued warrants to purchase 699,998 shares of common stock in exchange for services. The warrants are exercisable at a price range of \$0.03 to \$0.05, vesting up to one month from the date of grant, and expiring two to five years from the date of grant. Total fair value of these warrants at grant date was \$27,000 using the Black-Scholes Option Pricing model with the following assumptions: life of 2 to 5 years; risk free interest rate of 0.73% to 3.21%; volatility of 193% to 245% and dividend yield of 0%. During the six-month period ended June 30, 2023, the Company recognized compensation costs based on the fair value of warrants that vested of \$27,000.

At June 30, 2023, the aggregate intrinsic value of the warrants outstanding was \$221,000.

9. Commitments and Contingencies

We are involved in certain legal proceedings that arise from time to time in the ordinary course of our business. Except for income tax contingencies, we record accruals for contingencies to the extent that our management concludes that the occurrence is probable and that the related amounts of loss can be reasonably estimated. Legal expenses associated with the contingency are expensed as incurred. There is no current or pending litigation of any significance with the exception of the matters that have arisen under, and are being handled in, the normal course of business.

10. Subsequent Events

In July and August 2024, the Company issued convertible promissory notes in the aggregate of \$164,000 for cash proceeds of \$149,000, net of OID \$15,000. The notes are unsecured, with an 10% OID, mature in twelve months from issuance, and are convertible into 5,464,642 shares of the Company's common stock at \$0.03 per share. In addition, the Company granted the note holders warrants to purchase 5,464,642 shares of the Company's common stock at \$0.04 per share. The warrants are fully vested and expire one year from the date of issuance.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the Consolidated Financial Statements and supplementary data referred to in this Form 10-Q.

This discussion contains forward-looking statements that involve risks and uncertainties. Such statements, which include statements concerning future revenue sources and concentration, selling, general and administrative expenses, research and development expenses, capital resources, additional financings and additional losses, are subject to risks and uncertainties, including, but not limited to, those discussed elsewhere in this Form 10-Q, and in the "Risk Factors" that could cause actual results to differ materially from those projected. Unless otherwise expressly indicated, the information set forth in this Form 10-Q is as of June 30, 2023, and we undertake no duty to update this information.

Overview

QS Energy, Inc. ("QS Energy" or "Company" or "we" or "us" or "our") develops and seeks to commercialize energy efficiency technologies that assist in meeting increasing global energy demands, improving the economics of oil transport, and reducing greenhouse gas emissions. The Company's intellectual properties include a portfolio of domestic and international patents, a substantial portion of which have been developed in conjunction with and exclusively licensed by us from Temple University of Philadelphia, PA ("Temple"). QS Energy's primary technology (and for now only technology) is called Applied Oil Technology (AOT), a commercial-grade crude oil pipeline transportation flow-assurance product. Engineered specifically to reduce pipeline pressure loss, increase pipeline flow rate and capacity, and reduce shippers' reliance on diluents and drag reducing agents to meet pipeline maximum viscosity requirements, AOT is a 100% solid-state system that in lab and other tests has shown to reduce crude oil viscosity by applying a high intensity electrical field to crude oil while in transit. AOT technology has shown to deliver reductions in crude oil viscosity and pipeline pressure loss as demonstrated in independent third-party tests performed by the U.S. Department of Energy, the PetroChina Pipeline R&D Center, and ATS RheoSystems, a division of CANNON™, at full-scale test facilities in the U.S. and China, and under commercial operating conditions on one of North America's largest high-volume crude oil pipelines. Prior testing on a commercial crude oil condensate pipeline demonstrated high correlation between laboratory analysis and full-scale AOT operations under commercial operating conditions with onsite measurements and data collected by the pipeline operator on its supervisory control and data acquisition ("SCADA") system. The AOT product is still in development and testing and has transitioned from laboratory testing to initial demonstration and continued testing in advance of our goal of seeking commercial acceptance and adoption by the upstream and midstream pipeline marketplace. Such commercial acceptance and adoption have not been achieved. We continue to devote the bulk of our efforts to the promotion, design, testing and the commercial manufacturing and test operations of our crude oil pipeline products in the upstream and midstream energy sector. Our efforts in the foregoing regard have been substantially hampered by our lack of capital. We should be able to continue our efforts to commercialize our AOT product during 2024 only if we are able to raise sufficient capital to do so. We can provide no assurances that we will be able to raise the capital we need to continue our efforts in 2024, or that any such capital will be available to us on acceptable terms and conditions.

Our Company was incorporated on February 18, 1998, as a Nevada Corporation under the name Mandalay Capital Corporation. The Company changed its name to Save the World Air, Inc. on February 11, 1999. Effective August 11, 2015, the Company changed its name to QS Energy, Inc. The name change was affected through a short-form merger pursuant to Section 92A.180 of the Nevada Revised Statutes. Additionally, QS Energy Pool, Inc., a California corporation, was formed as a wholly owned subsidiary of the Company on July 6, 2015 to serve as a vehicle for the Company to explore, review and consider acquisition opportunities. To date, QS Energy Pool has not entered into any acquisition transaction. However, the Company will still consider entering into potential beneficial acquisitions. The Company is considering dissolving QS Energy Pool to reduce costs associated with operating this subsidiary. The Company's common stock is quoted under the symbol "QSEP" on the Over-the-Counter Bulletin Board (Pink Sheets).

More information including the Company's updates, fact sheet, logos and media articles are available at our corporate website, www.qsenergy.com.

A history of important events associated with our efforts to develop and commercialize our AOT technology is as follows: Since 2011, the Company transitioned from prototype testing of its AOT technology at the U.S. Department of Energy Rocky Mountain Oilfield Testing Center, Midwest, Wyoming ("RMOTC"), to the design and production of full-scale commercial prototype units. The Company worked in a collaborative engineering environment with multiple energy industry companies to refine the AOT Midstream commercial design to comply with the stringent standards and qualification processes as dictated by independent engineering audit groups and North American industry regulatory bodies. In May 2013, the Company's first commercial prototype unit known as AOT Midstream, was completed.

In 2013, the Company entered into an Equipment Lease/Option to Purchase Agreement (“TransCanada Lease”) with TransCanada Keystone Pipeline, L.P. by its agent TC Oil Pipeline Operations, Inc. (“TransCanada”) which agreed to lease and test the effectiveness of the Company’s AOT technology and equipment on one of TransCanada’s operating pipelines. As previously reported in our 10-K report filed with the SEC on March 16, 2015, in June 2014, the equipment was accepted by TransCanada and the lease commenced and the first full test of the AOT equipment on the Keystone pipeline was performed in July 2014 by Dr. Rongjia Tao of Temple University, with subsequent testing performed by an independent laboratory, ATS RheoSystems, a division of CANNON™ (“ATS”) in September 2014. Upon review of the July 2014 test results and preliminary report by Dr. Tao, QS Energy and TransCanada mutually agreed that this initial test was flawed due to, among other factors, the short-term nature of the test, the inability to isolate certain independent pipeline operating factors such as fluctuations in upstream pump station pressures, and limitations of the AOT device to produce a sufficient electric field to optimize viscosity reduction. Subsequent testing by ATS in September 2014 demonstrated viscosity reductions of 8% to 23% depending on flow rates and crude oil types in transit. In its summary report, ATS concluded that i) data indicated a decrease in viscosity of crude oil flowing through the TransCanada pipeline due to AOT treatment of the crude oil; and ii) the power supply installed on our equipment would need to be increased to maximize reduction in viscosity and take full advantage of the AOT technology. We determined more testing would be required to establish the commercial efficacy of our AOT technology. The TransCanada Lease was terminated by TransCanada, effective October 15, 2014. Upon termination of the TransCanada Lease, all equipment was uninstalled, returned, inspected and configured for re-deployment.

On July 15, 2014, the Company entered into an Equipment Lease/Option to Purchase Agreement (“Kinder Morgan Lease”) with Kinder Morgan Crude & Condensate, LLC (“Kinder Morgan”) under which Kinder Morgan agreed to lease and test the effectiveness of the Company’s AOT technology and equipment on one of Kinder Morgan’s operating crude oil condensate pipelines. Equipment provided under the Lease included a single AOT Midstream pressure vessel with a maximum flow capacity of 5,000 gallons per minute. The equipment was delivered to Kinder Morgan in December 2014 and installed in March 2015. In April 2015, during pre-start testing, low electrical impedance was measured in the unit, indicating an electrical short. A replacement unit was installed in May 2015. The second unit also presented with low impedance when flooded with crude condensate from Kinder Morgan’s pipeline. Subsequent to design modifications, a remanufactured AOT unit was installed and tested at Kinder Morgan’s pipeline facility in August 2015. Initial results were promising, with the unit operating generally as expected. However, voltage dropped as preliminary tests continued, indicating decreased impedance within the AOT pressure vessel. QS Energy personnel and outside consultants performed a series of troubleshooting assessments and determined that, despite modifications made to the AOT, conductive materials present in the crude oil condensate appeared to be the root cause of the decreased impedance. Based on these results, QS Energy and Kinder Morgan personnel mutually agreed to put a hold on final acceptance of equipment under the lease and suspended in-field testing to provide time to re-test crude oil condensate in a laboratory setting, and thoroughly review and test selected AOT component design and fabrication. Subsequent analysis and testing led to changes in electrical insulation, inlet flow improvements and other component modifications. These design changes were implemented and tested by Industrial Screen and Maintenance (ISM), one of QS Energy’s supply chain partners in Casper, Wyoming. Tests performed by ISM at its Wyoming facility indicated significant improvements to system impedance and efficiency of electric field generation.

In February 2016, the modified AOT equipment was installed at Kinder Morgan’s facility. Pre-acceptance testing was performed in April 2016, culminating in more than 24 hours of continuous operations. In-field viscosity measurements and pipeline data collected during this test indicated the AOT equipment operated as expected, demonstrating viscosity reductions equivalent to those measured under laboratory conditions. Supervisory Control And Data Acquisition (“SCADA”) pipeline operating data collected by Kinder Morgan during this test indicated a pipeline pressure drop reduction consistent with expectations. Results of this test were promising; however, due to the short duration of the test and limited data collection, definitive conclusions regarding the AOT performance and its impact on pipeline operations could not be reached. Based on final analysis of in-field test results, SCADA operating data and subsequent analysis of crude oil condensate samples at Temple University, it became unlikely Kinder Morgan would use the AOT at the original test location or other condensate pipeline. Kinder Morgan expressed interest in AOT operations at one of their heavy crude pipeline locations subject to results of other AOT demonstration projects and provided the Company with additional crude oil samples which have been tested at Temple University for future test correlation and operational planning purposes. The Kinder Morgan Lease is currently in suspension and there are no current plans to resume the lease or reinstall an AOT device at a Kinder Morgan facility.

Southern Research Institute (SRI) was engaged by QS Energy in 2015 to investigate the root cause of the crude oil condensate impedance issue by replicating conditions experienced in the field utilizing a laboratory-scaled version of the AOT and crude oil condensate samples provided by Kinder Morgan. In addition, QS Energy retained an industry expert petroleum pipeline engineer to review the AOT design and suggest design modifications to resolve the crude oil condensate impedance issue. This engineer has studied design details, staff reports and forensic photographs of each relevant AOT installation and test. Based on these investigations, specific modifications were proposed to resolve the impedance issue, and improve the overall efficiency of the AOT device, resulting in a new value-engineered design of certain AOT internal components.

During the third quarter of 2016, the Company developed an onsite testing program to demonstrate AOT viscosity reduction at prospective customer sites. This program utilized a laboratory-scale AOT device designed and developed by the Company and tested at the Southern Research Institute. Under this program, Company engineers set up a temporary lab at the customer's site to test a full range of crude oils. Fees charged for providing this service were dependent on scope of services, crude oil sample to be tested, and onsite time requirements. In the fourth quarter 2016, the Company entered a contract to provide these onsite testing services to a North American oil producer and pipeline operator over a one-week period in early 2017 at a fixed price of \$50,000. This test was performed in January 2017; data analysis and final report was completed in March 2017. Test results demonstrated viscosity reduction under limited laboratory conditions. The oil producer requested access to observe a full-scale demonstration facility and view operating data when they become available.

In 2014, the Company began development of a new suite of products based around the new electrical heat system which reduces oil viscosity through a process known as joule heat ("Joule Heat"). The Company built and tested its first Joule Heat prototype in June 2015. The system was operational; however, changes to the prototype configuration would be required to determine commercial effectiveness of this unit. In December 2015, we suspended Joule Heat development activities to focus Company resources on finalizing commercial development of the AOT. We may resume Joule Heat development in the future depending on the availability of sufficient capital and other resources.

In July 2017, the Company filed for trademark protection for the word "eDiluent" in advance of rolling out a new marketing and revenue strategy based on the concept of using AOT to reduce pipeline dependence upon diluent to reduce viscosity of crude oils. A primary function of AOT is to reduce viscosity by means of its solid-state electronics technology, in essence providing an electronic form of diluent, or "eDiluent". Subject to successful testing of our AOT technology and sufficient the availability of operating capital, the Company plans to market and sell a value-added service under the name eDiluent, designed to be upsold by the Company's midstream pipeline customers in an effort to provide the Company with long-term recurring revenues.

During the third quarter 2017, the Company built a dedicated laboratory space at its then Tomball, Texas facility, providing onsite testing utilizing our laboratory-scale AOT device, among other equipment. Development of an AOT unit for use in crude oil upstream and gathering operations was restarted in September 2017, utilizing resources at the Tomball, Texas facility. Also, during the third quarter 2017, the Company built an outdoor facility at the Tomball, Texas site for onsite storage of AOT inventory and other large equipment.

Throughout 2018 our primary strategic goal was focused on installing and operating a demonstration AOT project on a commercial crude oil pipeline. Much of our time was spent meeting with industry executives and engineers in North and South America and working with local representatives in the Asian and the Middle Eastern markets. In December 2018, we reached mutual agreement with a major U.S.-based pipeline operator on a demonstration project under which we would install and operate our AOT equipment on a crude oil pipeline located in the Southern United States. We believed at the time that the selected project site would be ideal for demonstration purposes, delivering heavy crudes which, based on samples tested at Temple University, and, subject to the discussion below, would experience significant viscosity reduction when treated with our AOT technology.

While management focused on finding a partner and finalizing terms of the demonstration project, and in our continuing efforts to commercialize our AOT technology, our engineering team worked throughout 2018 to prepare one of our inventoried AOT units for deployment. All system upgrade, inspections and testing protocols were completed in December 2018. The pipeline operator finalized site selection and began site design and engineering in January 2019, completing site preparation and equipment installation in June 2019. The project was installed within budget, quality compliant, and without safety incidents. The system passed the pre-start safety review, data acquisition signal verifications, and mechanical inspections. Under full crude oil flow, the system was confirmed to have no leaks and no environmental issues were noted. Data collected during the full-flow startup phase confirmed internal differential pressures to be negligible and consistent with design specifications. However, when the system was energized, and the unit was run-up to high-voltage operations, the primary power supply began to operate erratically and had to be taken offline. Subsequent inspection determined the primary power supply had failed.

After removing the primary power supply, our engineers reconfigured the system to run off a smaller secondary power supply. Although this unit was not capable of achieving target treatment voltage, we performed limited testing and troubleshooting measures, after which the damaged power supply was shipped to the manufacturer for expedited repair and reconditioning. Inspections performed during the repair process indicated internal power supply components had been physically damaged. Though not definitive, it appears that damage may have occurred during transit prior to initial installation at the demonstration site. While the demonstration project was offline for power supply repairs, our engineering team worked with oil samples pulled from the operating pipeline for testing at our then Tomball laboratory facility. These tests were designed to confirm our target power requirements as accurately as possible and help us fine-tune enhancements planned for a new optimized AOT internal grid pack design we had planned to test at the demonstration site as part of our continuing value engineering effort.

During initial testing with the small power supply, current draw was greater than prior field deployments. While it was expected that the small power supply would not achieve treatment voltage, as voltage was increased, actual current draw experienced under test conditions exceeded the operating limit of the power supply. Subsequent laboratory and in-field testing performed at our then Tomball facility showed the electrical conductivity of the oil to be quite high and in line with field observations. Although these tests indicated the unit was generally functioning properly, results further indicated the damaged power supply, once repaired, would not be capable of providing sufficient power to fully treat the crude oil due to the oil's high electrical conductivity. In anticipation of this result, the Company initiated in advance of testing parallel tasks of: i) installation of the repaired power supply to perform limited testing to confirm laboratory and in-field test results; and ii) procurement of a new power supply capable of providing significantly more power and a modified AOT grid pack assembly reconfigured and generally optimized based on the latest laboratory and in-field test results.

When the repaired power supply was installed in late August 2019, the system operated as expected, and limited testing was performed at that time. Results of this limited testing were consistent with laboratory tests performed to date. As expected, the repaired power supply was not capable of providing sufficient power to fully treat the crude oil under commercial operating conditions. Based on results of this limited testing, Company engineers completed designs and began implementation of modifications to the AOT internal grid pack assembly.

The new high capacity power supply and modified grid pack were installed in December 2019. However, prior to flooding the system with crude oil, early-phase startup testing indicated an electrical short circuit. Subsequent inspection revealed damage to the internal grid pack which likely occurred during installation. The grid pack was shipped offsite for repairs with reinstallation scheduled for January 2020.

The AOT demonstration project continued to experience setbacks during the first quarter of 2020. After repairing and re-installing the modified grid pack, the system shut down again during commissioning presenting with error conditions similar to the December 2019 failure. At that time, based on external inspections and on-site testing, our engineers suspected the grid pack had again been damaged during re-installation and that such suspected damage was the most likely cause of the electrical short circuit. It was determined at that time the best course of action would be to remove the modified grid pack and re-install the original grid pack which had previously been installed multiple times without sustaining damage, and perform a detailed inspection of the modified grid pack in an effort to determine the cause of the electrical short circuit.

Executing this plan, our team removed the modified grid pack and re-installed the original grid pack assembly in the AOT in January 2020. After removal, our engineers performed a detailed inspection of the modified grid pack. Inconsistent with expectations, no damage to the modified grid pack was found during this inspection, leaving the cause of the electrical short circuit undiagnosed.

In January and February 2020, our engineers tested and attempted to operate the AOT under a variety of conditions. In these tests, the system could be run at high voltage, but not high enough for treatment with the installed grid pack, under static "shut-in" conditions; however, the system continued to shut down due to an electrical short circuit when operated under pressure. In simple terms, this means the system could be flooded with crude oil and powered up in excess of 10,000 volts when the system was shut-in by closing the intake and outtake valves which isolates the system from the pipeline's operating pressure. However, once the valves were opened and the system was subjected to the pipeline's operating pressure, the system developed an electrical short circuit and shut down.

As the presence of high pressure appears to trigger the short circuit, it was the belief of our engineers that it is unlikely the fault is in the grid pack assembly as this component is fully submerged in crude oil and is generally subjected to equal pressure on all components. The electrical short is more likely developing in the electrical connection assembly built into the blind flange at the top of the pressure vessel, which is subjected to high pressure under normal operating conditions. Unfortunately, this electrical connection assembly could not be inspected without destroying the assembly itself. Instead, our engineers developed a plan to replace the installed blind flange and electrical connection assembly with components from inventory which would be rebuilt prior to installation.

As part of an ongoing reliability-engineering effort, our engineers at that time worked on incremental modifications to improve electrical isolation within the blind flange and electrical connection assembly. These previously developed plans allowed us to move quickly with vendors and present an expedited plan to the pipeline operator. In March 2020, our engineers designed modifications to the blind flange, electrical connections and related housing intended to minimize the effects of high pressure and likelihood of internal electrical short circuits. Concurrently, a blind flange with high voltage assembly was shipped from inventory to a shop with specialized equipment used to strip the flange of all electrical insulation materials. Once the stripping process was complete, castings were made to complete the internal assembly. Our engineers believed at the time that this modification could solve the electrical short issue we have experienced in prior tests.

While the blind flange assembly was being remanufactured, we took the opportunity to implement a number of relatively minor modifications to other system configurations which had been planned for future units based on results of our engineering team's reliability engineering work over the past two years. These modifications were designed to improve the reliability of internal electrical connections, increase the structural support of the internal grid pack, and maintain higher quality control over internal component positioning and alignment during vertical installation.

Notwithstanding our efforts, the AOT system continues to be non-operational under normal operating conditions. As reported in previous updates on our website at <https://qsenergy.com/updates> and in our Form 8-K filed with the SEC on March 4, 2020, the AOT system experienced shutdowns during the commissioning process. In December 2019, after installing a modified grid pack and new high-capacity power supply, the system shut down presenting with an electrical short which was determined to be due to damage to the system's internal grid pack likely incurred during installation. After repairing and re-installing the modified grid pack in January 2020, the system shut down again during commissioning presenting with error conditions similar to the December 2019 failure. At that time, based on external inspections and on-site testing, our engineers suspected the grid pack had again been damaged during re-installation and that such suspected damage was the most likely cause of the electrical short circuit. As reported in our January 24, 2020 website update page, it was determined at that time the best course of action would be to remove the modified grid pack and re-install the original grid pack which had previously been installed multiple times without sustaining damage, and perform a detailed inspection of the modified grid pack in an effort to determine the cause of the electrical short circuit.

Executing on this plan, our team removed the modified grid pack and re-installed the original grid pack assembly in the AOT. After removal, our engineers performed a detailed inspection of the modified grid pack. Inconsistent with our expectations, no damage to the modified grid pack was found during this inspection, leaving the cause of the most recent electrical short circuit undiagnosed.

We have tested and attempted to operate the AOT under a variety of conditions. We have been able to bring the system up to high voltage under static "shut-in" conditions; however, as reported above, the system continued to shut down due to an electrical short circuit when operated under pressure. In simple terms, as also reported above, this means we can flood the system with crude oil, shut-in the system by closing the intake and outtake valves isolating the system from the pipeline's operating pressure, and power up the system in excess of 10,000 volts. Once the valves are opened and the system is subjected to the pipeline's operating pressure, the system develops an electrical short circuit and shuts down. Because of our inability to fully diagnose the cause of our current electrical problems, we can provide no assurances that we will not face other operational issues after completing a full diagnosis and evaluation of our technology.

As previously reported, in December 2018, we entered into an agreement with a major U.S.-based pipeline operator under which the Company installed its AOT equipment on a crude oil pipeline located in the Southern United States for testing and demonstration purposes. Based on laboratory tests and operations of prototype equipment at other locations, we had a reasonable expectation that the equipment would operate successfully and that test results would demonstrate quantifiable benefits to pipeline operators. This has not occurred.

As reported in the Company's Form 10-K and Form 10-Q filed with the SEC on March 31, 2020 and June 29, 2020, respectively, and in website updates published on the Company's website at <https://qsenergy.com/updates>, the Company experienced a number of difficulties and delays at the demonstration site. Despite identifying and implementing numerous design modifications over several months, the Company was unable to successfully operate its AOT equipment.

In late June 2020, equipment modifications intended to mitigate electrical short circuit issues identified in earlier tests were completed. During startup testing, the system experienced a new failure mode in which the system could be operated at a baseline high voltage (well below operational voltage required to treat heavy crude), but after a period of time, the system would drop to very low voltage indicating a reduction in electrical resistance in the AOT. This voltage drop was both dynamic, developing over time as electrical current was applied; and transient, in that the power supply could be shut-down and re-started with this voltage drop characteristic repeating. After reviewing these results and running subsequent in-field tests at the direction of the power supply manufacturer, they recommended a configuration modification to the control module of the system's high-voltage power supply which, in their experience, could resolve the system's ability to maintain constant voltage under our unique operating conditions in which the AOT essentially acts as a very large capacitor. During the first week of July 2020, we modified the power supply control module at the direction of the power supply manufacturer. Though this modification did appear to solve the voltage drop issue, the AOT could not achieve operational voltage as the system control module indicated arc-faults when high voltage was applied above the baseline voltage levels. After many attempts to bring the system up to operating voltage, arc-faults continued until the AOT demonstrated symptoms of what appeared to be a dead short (electrical short-to-ground; voltage dropped to zero) and the system could no longer be re-started.

After discussions with our demonstration pipeline partner, it was mutually agreed that the best course of action was to move the equipment from the demonstration site to another location where our engineers could disassemble and inspect the equipment. Our AOT equipment was moved to storage, inspection, and testing site in the state of Mississippi. Our former demonstration partner indicated their continued interest in our AOT technology and may consider installation and operation of a new AOT demonstration project if our operational issues can be resolved.

We shut down all testing of our AOT product in July 2020, due to a lack of operating capital; we received limited capital in 2021, allowing us to commence some additional testing of our AOT product.

In 2021, following our receipt of limited capital, our engineer commenced re-testing and completed a troubleshooting sequence. Lab test fixtures were designed and built, and testing results supported the redesign of the AOT internals. The results of the electrical testing of the insulating material showed that the material of constructions was functioning as designed. However, during the testing it was discovered that the material swells when exposed to crude oil. The current design does not accommodate a change in size of the parts.

We validated a new design concept for the grid pack will reduce arcing and allowed us to apply full voltage during a recent test. A 3rd party engineering firm with proper experience and three-dimensional modeling software was engaged. A design review was completed, final drawings were sent to our vendors, and prototype parts, for fit and electrical testing, were ordered.

In August 2022 we completed the testing of the new components. The assembly did not suffer the arcing problems we saw when testing an assembly made from parts of the full size AOT. It appeared that we accomplished the goal of eliminating the sources of arcing that prevented us from achieving treatment voltages with this new design.

The lessons learned during the stack assembly test have been applied and the results incorporated into the designs for the spacer rings and the screens. This change to the isolator ring design resulted in some iterative designs to optimize the casting tooling or molds. The time spent on this redesign created a delay in our goal for testing in September 2022.

Since reporting our findings on October 7, 2021, we have been able to positively confirm and correct 80% of what we have determined thus far to be the necessary improvements for a reliable and field worthy AOT. Based on the results of the recent component testing, we were able to rework the original grid pack, achieve high voltage in air and oil to verify that the individual components worked when assembled.

Once all the parts were delivered for a full AOT, we assembled the stack and installed the stack into the vessel. The vessel was filled with oil and tested. We were able to apply full voltage of 40.1kV to the AOT. We believe the AOT is now ready to test with customer oil and be deployed back into the field. Having achieved a positive hydrostatic test, we were able to have our final engineering call with a potential development partner. We are currently in pursuit of a letter of intent and agreement to include financial metrics for a commercially viable contract (see paragraph below).

We reopened discussions with our original development partner as well as reaching out to others. While we have tested with a representative oil sample, we have not yet reached an agreement with a development partner allowing us to test a development partner's pipeline oil as a prelude to another field test. Our efforts continue to reach agreement with a suitable development partner as our next step to develop and commercialize our AOT technology.

Our team has diligently pursued the formalization of a new initiative, aligning it with the strategic priorities of potential development partners. As we endeavor to seamlessly incorporate state-of-the-art technologies into a novel operational framework, we acknowledge that comprehensive planning and meticulous execution invariably require more time than initially anticipated.

A noteworthy milestone has been achieved, demonstrating significant viscosity reduction for the specified oil target. Our collaboration with Temple University continues as we define the operational parameters of the AOT system, essential for effective field deployment. Concurrently, we are actively exploring commercial opportunities for our AOT product.

In our ongoing effort to commercialize our AOT technology, as announced in our press release of June 12, 2024, we entered into a letter of intent on June 11, 2024, with VIP Petroleum, LLC (“VIP”) to collaborate on and outline preliminary terms of a memorandum of understanding (“MOU”) regarding the commercial deployment of our AOT technology on one or more pipeline networks owned and operated by VIP’s customer/clients. The MOU is still in process, and we hope to have it completed and signed as soon as possible. Following the completion and execution of the MOU, we hope to finalize a definitive agreement with VIP, and thereafter we hope to engage with a customer(s) of VIP to demonstrate the efficacy of our AOT product within the operating goals and requirements of the customer. If those customers’ goals and requirements are satisfied, we hope next to deploy our AOT product on the customer’s pipeline networks. While we believe the MOU and definitive agreement with VIP will be completed, and while we believe we will have an opportunity thereafter to seek deployment of our AOT product on a VIP customer’s pipeline network, we can offer no assurances that agreements will be signed with VIP or that VIP’s customers will approve or seek installation of our AOT product.

Our expenses to date have been funded through the sale of shares of common stock and convertible debt, as well as proceeds from the exercise of stock purchase warrants and options. We will need to raise substantial additional capital through 2024, and beyond, to fund work on our AOT, our sales and marketing efforts, continuing research and development, and certain other expenses, including without limitation, legal and accounting expenses, until we are able to achieve a revenue base. We can provide no assurances that additional capital will be available to us, or if it is, that such additional capital will be offered at acceptable terms.

There are significant risks associated with our business, our Company and our stock. See “Risk Factors,” below.

We are dedicated to the crude oil production and transportation marketplace, with a specifically targeted product offering for enhancing the flow-assurance parameters of new and existing pipeline gathering and transmission systems.

Our primary goal is to provide the oil industry with a cost-effective method by which to increase the number of barrels of oil able to be transported per day through the industry’s existing and newly built pipelines. The greatest impact on oil transport volume may be realized through reductions in pipeline operator reliance on diluent for viscosity reduction utilizing AOT technology; a process the Company refers to as electronic diluent, or “eDiluent”. The Company filed for trademark protection of the term eDiluent in 2017. We also seek to provide the oil industry with a way to reduce emissions from operating equipment. We believe our goals may be realizable via viscosity reduction using our AOT product line.

We believe QS Energy’s technologies will enable the petroleum industry to gain key value advantages boosting profit, while satisfying the needs of regulatory bodies at the same time. Key players in the pipeline industry continue to demonstrate interest in our technologies.

Our manufacturing strategy is to contract with third-party vendors and suppliers, each with a strong reputation and proven track record in the pipeline industry. These vendors are broken up by product component subcategory, enabling multiple manufacturing capacity redundancies and safeguards to be utilized. In addition, this strategy allows the Company to eliminate the prohibitively high capital expenditures such as costs of building, operating and maintaining its own manufacturing facilities, ratings, personnel and licenses, thereby eliminating unnecessary capital intensity and risk.

Three months ended June 30, 2024 and 2023

Results of Operations for three months ended June 30, 2024 and 2023

	2024	Three months ended June 30, 2023	Change
Revenues	\$ —	\$ —	\$ —
Costs and expenses			
Operating expenses	201,000	158,000	43,000
Research and development expenses	48,000	47,000	1,000
Loss from operations	(249,000)	(205,000)	(44,000)
Other income (expense)			
Interest and financing expense	(84,000)	(79,000)	(5,000)
Net Loss	<u>\$ (333,000)</u>	<u>\$ (284,000)</u>	<u>\$ (49,000)</u>

The Company had no revenues in the three month-periods ended June 30, 2024 and 2023.

Operating expenses were \$201,000 for the three-month period ended June 30, 2024, compared to \$158,000 for the three-month period ended June 30, 2023, an increase of \$43,000. This is due to a decrease in non-cash expenses of \$2,000 offset by an increase in cash expenses of \$45,000. Specifically, the decrease in non-cash expenses is attributable to a decrease in stock compensation expense attributable to warrants issued as compensation for services of \$2,000. The increase in cash expense is attributable to legal and accounting of \$22,000, consulting fees of \$17,000, rent and utilities of \$3,000, patent expenses of \$3,000, public and investor relations of \$2,000, corporate expenses of \$2,000, insurance of \$1,000, and travel expenses of \$1,000, offset by a decrease in worker's comp of \$3,000, office expenses of \$2,000, and depreciation expense of \$1,000.

Research and development expenses were \$48,000 for the three-month period ended June 30, 2024, compared to \$47,000 for the three-month period ended June 30, 2023, an increase of \$1,000. This increase is attributable to increases in prototype product development costs of \$1,000.

Other expense were \$84,000 expense for the three-month period ended June 30, 2024, compared to \$79,000 expense for the three-month period ended June 30, 2023, a net increase in other expenses of \$5,000. This increase is attributable to an increase in non-cash other expenses of \$5,000. The increase in non-cash other expense is due to an increase in expense attributable to interest, beneficial conversion factors and warrants associated with convertible notes issued in the amount of \$5,000.

The Company had a net loss of \$333,000, or \$0.00 per share, for the three-month period ended June 30, 2024, compared to a net loss of \$284,000, or \$0.00 per share, for the three-month period ended June 30, 2023.

Six months ended June 30, 2024 and 2023

Results of Operations for six months ended June 30, 2024 and 2023

	2024	Six months ended June 30, 2023	Change
Revenues	\$ —	\$ —	\$ —
Costs and Expenses			
Operating expenses	527,000	344,000	183,000
Research and development expenses	95,000	101,000	(6,000)
Loss from operations	(622,000)	(445,000)	(177,000)
Other income (expense)			
Interest and financing expense	(160,000)	(173,000)	13,000
Net Loss	<u>\$ (782,000)</u>	<u>\$ (618,000)</u>	<u>\$ (164,000)</u>

Operating expenses were \$527,000 for the six-month period ended June 30, 2024, compared to \$344,000 for the six-month period ended June 30, 2023, an increase of \$183,000. This is due to an increase in non-cash expenses of \$134,000 and an increase in cash expenses of \$49,000. Specifically, the increase in non-cash expenses is attributable to an increase in stock compensation expense attributable to common stock and warrants issued as compensation for services of \$134,000. The increase in cash expense is attributable increases in patent expenses of \$28,000, consulting fees of \$22,000, rent and utilities of \$5,000, legal and accounting of \$3,000, public and investor relations of \$2,000, insurance of \$1,000, and corporate expenses of \$1,000, offset by a decrease in office expenses of \$6,000, travel expenses of \$3,000, business meals of \$2,000, bank fees of \$2,000.

Research and development expenses were \$95,000 for the six-month period ended June 30, 2024, compared to \$101,000 for the six-month period ended June 30, 2023, a decrease of \$6,000. This decrease is attributable to decreases in prototype product development costs of \$5,000 and tools of \$1,000.

Other expense were \$160,000 for the six-month period ended June 30, 2024, compared to \$173,000 expense for the six-month period ended June 30, 2023, a net decrease in other expenses of \$13,000. This decrease is attributable to a decrease in non-cash other expenses of \$13,000. The decrease in non-cash other expense is due to decreases in expense attributable to interest, beneficial conversion factors and warrants associated with convertible notes issued in the amount of \$13,000.

The Company had a net loss of \$782,000 or \$0.00 per share, for the six-month period ended June 30, 2024, compared to a net loss of \$618,000, or \$0.00 per share, for the six-month period ended June 30, 2023.

Liquidity and Capital Resources

General

As reflected in the accompanying condensed consolidated financial statements, the Company has not yet generated significant revenues and has incurred recurring net losses. We have incurred negative cash flow from operations since our inception in 1998 and a stockholders' deficit of \$5,542,000 as of June 30, 2024. Our negative operating cash flow for the periods ended June 30, 2024 was funded primarily through issuance of convertible notes and execution of options and warrants to purchase common stock.

The accompanying condensed consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the accompanying condensed consolidated financial statements, the Company had a net loss of \$782,000 and a negative cash flow from operations of \$319,000 for the six-month period ended June 30, 2024. In addition, as of June 30, 2024, 42 notes payable with an aggregate balance of \$2,200,000 and certain obligations to a former officer are past due. These factors raise substantial doubt about our ability to continue as a going concern. In addition, the Company's independent registered public accounting firm, in its report on the Company's December 31, 2023 financial statements, has raised substantial doubt about the Company's ability to continue as a going concern.

Our ability to continue as a going concern is dependent upon our ability to raise additional funds and implement our business plan. The consolidated financial statements do not include any adjustments that might be necessary if we are unable to continue as a going concern.

Summary

At June 30, 2024, we had cash on hand in the amount of \$132,000. We will need additional funds to operate our business, including without limitation the expenses we will incur in connection with the license agreements with Temple University; costs associated with product development and commercialization of the AOT and related technologies; costs to manufacture and ship our products; costs to design and implement an effective system of internal controls and disclosure controls and procedures; costs of maintaining our status as a public company by filing periodic reports with the SEC and costs required to protect our intellectual property. In addition, as discussed above, we have substantial contractual commitments, including without limitation salaries to our executive officers pursuant to employment agreements, certain severance payments to a former officer and consulting fees, during the remainder of 2024 and beyond.

No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company.

Licensing Fees to Temple University

For details of the licensing agreements with Temple University, see Financial Statements attached hereto, Note 6 (Research and Development).

Critical Accounting Policies and Estimates

Our discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements and related disclosures requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, expenses, and related disclosure of contingent assets and liabilities. We evaluate, on an on-going basis, our estimates and judgments, including those related to the useful life of the assets. We base our estimates on historical experience and assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The methods, estimates and judgments we use in applying our most critical accounting policies have a significant impact on the results that we report in our consolidated financial statements. The SEC considers an entity's most critical accounting policies to be those policies that are both most important to the portrayal of a company's financial condition and results of operations and those that require management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about matters that are inherently uncertain at the time of estimation. For a more detailed discussion of the accounting policies of the Company, see Note 2 of the Notes to the Consolidated Financial Statements, "Summary of Significant Accounting Policies".

We believe the following critical accounting policies, among others, require significant judgments and estimates used in the preparation of our consolidated financial statements.

Estimates

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Certain significant estimates were made in connection with preparing our consolidated financial statements as described in Note 2 to Notes to the Condensed Consolidated Financial Statements. Actual results could differ from those estimates.

Stock-Based Compensation

The Company periodically issues stock options and warrants to employees and non-employees in non-capital raising transactions for services and for financing costs. The Company accounts for stock option and warrant grants issued and vesting to employees based on the authoritative guidance provided by the Financial Accounting Standards Board whereas the value of the award is measured on the date of grant and recognized over the vesting period. The Company accounts for stock option and warrant grants issued and vesting to non-employees in accordance with the authoritative guidance of the Financial Accounting Standards Board whereas the value of the stock compensation is based upon the measurement date as determined at either a) the date at which a performance commitment is reached, or b) at the date at which the necessary performance to earn the equity instruments is complete. Non-employee stock-based compensation charges generally are amortized over the vesting period on a straight-line basis. In certain circumstances where there are no future performance requirements by the non-employee, option grants are immediately vested and the total stock-based compensation charge is recorded in the period of the measurement date.

The fair value of the Company's common stock option grants is estimated using the Black-Scholes Option Pricing model, which uses certain assumptions related to risk-free interest rates, expected volatility, expected life of the common stock options, and future dividends. Compensation expense is recorded based upon the value derived from the Black-Scholes Option Pricing model, and based on actual experience. The assumptions used in the Black-Scholes Option Pricing model could materially affect compensation expense recorded in future periods.

Going Concern

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the accompanying consolidated financial statements, during the six-months ended June 30, 2024, the Company incurred a net loss of \$782,000, used cash in operations of \$319,000 and had a stockholders' deficit of \$5,542,000 as of that date. In addition, as of June 30, 2024, 42 notes payable with an aggregate balance of \$2,200,000 and certain obligations to a former officer are past due. These factors raise substantial doubt about the Company's ability to continue as a going concern. In addition, the Company's independent registered public accounting firm, in its ability of the Company to continue as a going concern is dependent upon the Company's ability to raise additional funds and implement its business plan. The financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

At June 30, 2024, the Company had cash on hand in the amount of \$132,000. Management estimates that the current funds on hand will be sufficient to continue operations through August 2024. Management is currently seeking additional funds, primarily through the issuance of debt and equity securities for cash to operate our business, including without limitation the expenses it will incur in connection with the license agreements with Temple; costs associated with product development and commercialization of the AOT technologies; costs to manufacture and ship the products; costs to design and implement an effective system of internal controls and disclosure controls and procedures; costs of maintaining our status as a public company by filing periodic reports with the SEC and costs required to protect our intellectual property. In addition, the Company has substantial contractual commitments, including without limitation salaries to our executive officers pursuant to employment agreements, certain payments to a former officer and consulting fees, during the remainder of 2024 and beyond.

No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing or cause substantial dilution for our stockholders in case of equity financing.

Recent Accounting Policies

See Footnote 2 in the accompanying financial statements for a discussion of recent accounting policies.

Item 3. Quantitative and Qualitative Disclosure about Market Risk

We issue from time-to-time fixed rate discounted convertible notes. Our convertible notes and our equity securities are exposed to risk as set forth below, in Part II Item 1A, "Risk Factors." Please also see Item 2, above, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Item 4. Controls and Procedures

1. Disclosure Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the Company's Chief Executive and Financial Officer, evaluated, as of March 31, 2024, the effectiveness of the Company's disclosure controls and procedures, as such term is defined under Securities and Exchange Act of 1934 Rules 13a-15(f), which were designed to be effective at the reasonable assurance level. Based on this evaluation, the Company's Chief Executive and Financial Officer concluded that the Company's disclosure controls and procedures were not effective as of June 30, 2024. As of June 30, 2024, management's assessment identified the material weaknesses in the Company's internal control over financial reporting:

We continue to have a material weakness in our internal control over financial reporting as disclosed in our 2023 Form 10-K, in that the Company has (i) inadequate segregation of duties consistent with control objectives; and (ii) the Company has an insufficient number of personnel with an appropriate level of U.S. GAAP knowledge and experience and ongoing training in the application of U.S. GAAP and SEC disclosure requirements commensurate with the Company's financial reporting requirements.

(a) Changes in Internal Control over Financial Reporting

No change in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the six-month period ended June 30, 2024 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

There is no litigation of any significance with the exception of the matters that have arisen under, and are being handled in, the normal course of business.

Item 1A. Risk Factors

There have been no material changes in the risk factors previously disclosed in Form 10-K for the period ended December 31, 2023, which we filed with the SEC on April 9, 2024.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuances

In private offerings exempt from registration, during the six months ended June 30, 2024, the Company issued 7,062,000 shares of its common stock upon the conversion of \$276,000 in convertible notes at \$0.03 to \$0.05 per share. In connection with the issuances of the foregoing securities, the Company relied on the exemption, among other exemptions, from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended, for transactions not involving a public offering.

The proceeds received by the Company in connection with the above issuances of shares were used and continue to be used for general corporate purposes.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

None

Item 5. Other Information

The Company provides regular updates on its website in a section thereunder labeled “Recent Updates” at <https://qsenergy.com/updates>.

During the quarter ended June 30, 2024, no director or officer of the Company adopted or terminated a “Rule 10b5-1 trading arrangement” or “non-Rule 10b5-1 trading arrangement,” as each term is defined in Item 408(a) of Regulation S-K.

Item 6. Exhibits

<u>Exhibit No.</u>	<u>Description</u>
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31.1	Certification of Chief Executive Officer of Quarterly Report Pursuant to Rule 13(a)-15(e) or Rule 15(d)-15(e)
31.2	Certification of Chief Financial Officer of Quarterly Report pursuant to Rule 13(a)-15(e) or Rule 15(d)-15(e)
32	Certification of Chief Executive Officer and Chief Financial Officer of Quarterly Report Pursuant to 18 U.S.C. Section 1350
101.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted in iXBRL, and included in exhibit 101).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has caused this Report to be signed on its behalf by the undersigned, hereunto duly authorized.

QS ENERGY, INC.

Date: August 9, 2024

By: /s/ Cecil Bond Kyte
Cecil Bond Kyte
Chief Executive Officer, Chief Financial Officer, and
Chairman of the Board of Directors

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002
AND RULES 13A-14 AND 15D-14 UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Cecil Bond Kyte, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of QS Energy, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) or 15d-15(e) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(d)-15(f) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its condensed consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 9, 2024

/s/ CECIL BOND KYTE
Cecil Bond Kyte
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002
AND RULES 13A-14 AND 15D-14 UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Cecil Bond Kyte, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of QS Energy, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) or 15d-15(e) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(d)-15(f) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its condensed consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 9, 2024

/s/ CECIL BOND KYTE
Cecil Bond Kyte
Chief Financial Officer

EXHIBIT 32

CERTIFICATION OF PERIODIC FINANCIAL REPORT BY THE
CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Solely for the purposes of complying with 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, we, the undersigned Chief Executive Officer and the Chief Financial Officer of QS Energy, Inc. (the "Company"), hereby certify, based on our knowledge, that the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2024 (the "Report") fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 9, 2024

/s/ Cecil Bond Kyte

Cecil Bond Kyte
Interim Chief Executive Officer

Date: August 9, 2024

/s/ Cecil Bond Kyte

Cecil Bond Kyte
Chief Financial Officer