

**Stock Data**

Share Price:	3.70p
Market Cap.:	£62.40m*
Shares in issue:	1,686.50m*
52 week high/low:	7.49p/3.40p

\*Post-Placing numbers

**Company Profile**

Sector:	Oil & Gas
Ticker:	ZPHR
Exchange:	AIM

**Activities**

Zephyr Energy plc ('Zephyr', 'the Group') is an independent oil and gas E&P Group with a strategic focus on carbon-neutral hydrocarbon development projects in the Rocky Mountain region of the US.

[www.zephyrplc.com](http://www.zephyrplc.com)

**5-year share price performance**



Source: [LSE](https://www.lse.com)

Past performance is not an indication of future performance.

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## Zephyr Energy plc

Zephyr confirms it has raised £3.15m (gross) through an equity placing priced at 3.5p/share that was supported by existing institutional and other investors, resulting in roughly 5% dilution for current shareholders. Utilising existing share authorities, in the near-term this new funding is designed to bridge a gap resulting from both unexpected delays in building-out surface facilities at its recently acquired, Slawson Exploration-operated Williston Basin interests ('the Slawson acquisition'), plus working capital required to complete the State 36-2 LN-CC production test following April's well control incident. In the longer term, the funding will be utilised to accelerate the Paradox infrastructure build-out. It will enable Paradox project development to remain on schedule as the comprehensive insurance reimbursement process gets underway, and while also waiting for initial production from the Slawson well (which has now slipped to October 2023, some three-six months behind the original schedule). Preparatory well work at the State 36-2 well remains on track with a production test expected in June, albeit timing will be dictated by operational and safety considerations. While the well control incident resulted in delays to the initial production test, the goal remains for both it and the State 16-2 LN-CC well to be brought into full production before the year end. In the meantime, the 36-2's pressures and hydrocarbon potential remain substantial. Given the Group's commitment to continue accelerating the Paradox development and the large potential scale of the project, various alternatives, including partnership, joint-venture ('JV') and farm-in structures, will be explored in the coming months.

### Use of Funds – Covering near-term infrastructure costs

The £3.15m (gross) raised will be used to complete the 36-2 production test, comprising near term infrastructure costs and working capital. The Board's expectation is that this will enable the Group to deliver on its key strategic 2023 objectives of bringing the Paradox project into commercial production over the coming months, while bridging to the significant revenues expected as both the State 36-2 and the State 16-2 wells enter full production in tandem with the Slawson acquisition coming online before the year end.

Use of Funds*	US\$	£
36-2 Production Test	1,250,000	1,000,000
Working Capital	2,375,000	1,900,000
Offering Fees & Expense	312,500	250,000
<b>Total Uses</b>	<b>3,937,500</b>	<b>3,150,000</b>

GBP=1.25US\$ \*Estimated

Source: Zephyr, [RNS of 6 June 2023](https://www.rns.com)

Importantly, multiple long-term shareholders, including institutions such as Premier Miton, participated in this placing.

### State 36-2 - Preparing for Production Test

Following the significant well control incident announced on 11 April 2023, in which a substantial natural fracture network was encountered, Zephyr confirms that following safe containment of the blowout, planning is being advanced to commence production testing as soon as possible. Such start-up

issues of course are not considered particularly unusual when emerging plays break new ground. With an eye on safety and working conditions for the on-site team, however, timing of the well test will be dictated by operational conditions to ensure well control is maintained.

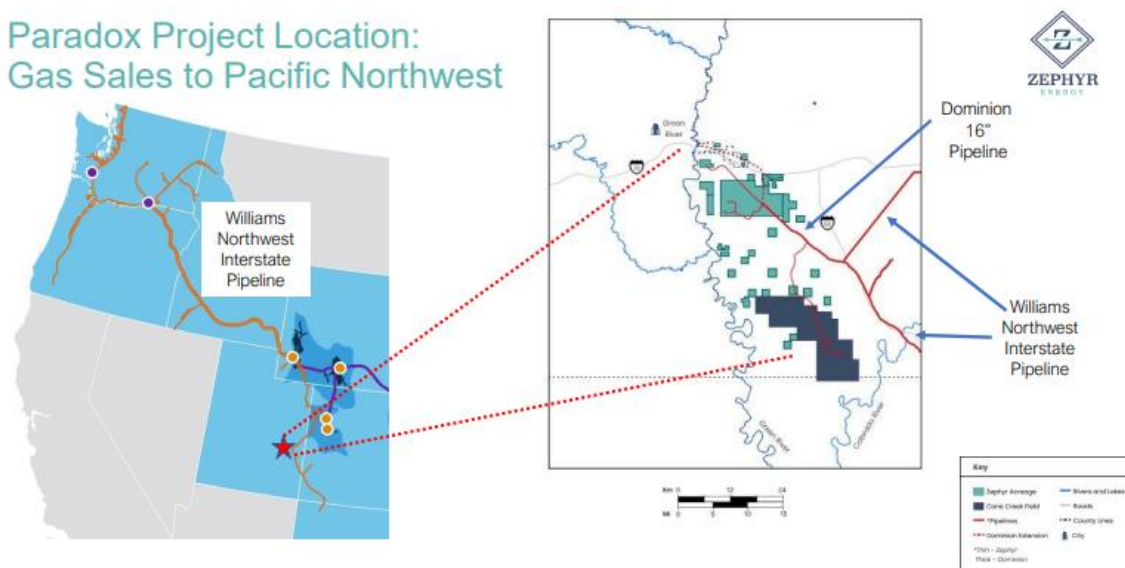
Should everything proceed according to plan, Zephyr looks to conduct a test later this month. Given evidence of substantial pressures and hydrocarbons, Zephyr is now in the process of pulling 2-7/8" production tubing out of the hole, recognising that some joints were compressed/compromised/stuck due to the high pressures of the well control incident. So far, 6,500 feet of 8,900 feet of tubing have been pulled and inspected with 26 joints replaced. Management is moving methodically to remove and inspect the remaining joints while keeping the wellbore static. Once complete, a final cement squeeze will be performed and then the casing will be perforated across the Cane Creek reservoir interval prior to well testing.

Although it is unclear at this time as to the total volume of gas and condensate released during the blowout, a confirmatory environmental survey found surface impacts were limited to an area immediately around the pad. Given the significant pressure events witnessed, however, management is reviewing each and every aspect of the production facilities, the well itself and operational procedure to help ensure a successful production test. Despite all this, management do not foresee the delay as being material to the long run opportunity presented.

Indeed, although challenging from a safety and environmental standpoint, the event itself provided a further boost to the Group's confidence that it has a significant well on hand with State 36-2 (100% WI). Being an uncontrolled event, there was of course no facility to measure the flow of gas and condensate over the three days, although it left a clear impression of being a large well capable of producing exceptional volumes of both natural gas and high-API gas condensate (that typically trades on a price/bbl slightly above WTI). The fluid mix itself is likely to be similar to that seen during State 16-2 well's own production test although, being somewhat further south, it may possibly produce a slightly higher proportion of gas condensate. Once underway, production testing is expected to take less than four weeks to complete. The outcome will undoubtedly be eagerly awaited.

Production test results from the State 36-2 well, along with those from the State 16-2 well, will be integrated into Zephyr's overall reservoir model and will help define the next steps for the Paradox project development, including the sizing of related gas infrastructure and the associated capital expenditure. Targeting first commercial gas sales during Q4 2023, the Group needs to complete the recommissioning of its recently acquired Powerline Road gas processing plant (with handling capacity yet to be determined). At the same time, Dominion Energy has made significant progress in regard to the refurbishment and extension of their 16-inch infrastructure, with all permits acquired and substantial pipe now in the ground. The pipeline is expected to be operational during Q4 2023.

### Paradox Project Location: Gas Sales to Pacific Northwest



Source: Zephyr, Investor Presentation, May 2023

## **Well Control Insurance expected to cover most of the costs related to the 36-2 blowout**

As a risk mitigation protocol, Zephyr's operations were covered by comprehensive Well Control Insurance. Given that the policies compensate on a reimbursement basis, payments to service providers do impact corporate working capital levels as reimbursement times (from the insurer to Zephyr) have potential to vary - hence the need to secure additional near-term capital to ensure Paradox development remains on schedule. Insurance is expected to cover the bulk of all well work, equipment and damage costs, as well as any expenses related to site remediation (a sum in total estimated by TPI to be in the range of US\$3m to US\$5m). Zephyr may have duty to pay some relatively minor excess charges, while also incurring additional costs related to possible modification of facilities required to cope with the excess pressure, any additional work that may be needed to the well itself, plus fees related to retaining the rig crew for a longer than expected period.

## **State 16-2 well - Production test to date**

The well was initially tested for 23 days in late 2021. This was the first test of a horizontal well using modern hydraulic stimulation in the Paradox. A 4,000-foot lateral was successfully stimulated to produce favourable rock mechanics, while witnessing very limited pressure drop, something that is consistent with high permeability. High (rate restricted) production delivered rate-constrained highs of 1,083 boepd, with modelled plateau rates of 2,100 boepd (10m cubic ft gas per day and 500 bopd of condensate liquids) along with encouraging signs of larger connected volume possibly producing rates as much as 2.5 times greater and capable of recovering 3-times the initially expected volumes which, in itself, introduced additional upside potential along with associated risk. Positively, the liquid yield was high condensate, approximately 60°API compared to c.39.6° API average for WTI benchmark oil; such barrels being sought after in Utah as they can be blended with heavier, waxy crude from the nearby Uinta Basin, providing indications that suggest State 16-2 output could attract premium pricing.

The well's second production test was hampered by severe weather, surface facility commissioning and salt precipitation issues, impacting flow at higher rates. Having first achieved a steady flow rate of 433 boepd, blockage was evident upon attempting to increase the volumes and needed to be cleared several times. Considered either a function of continued flowback of completion fluids or a function of normal flowing conditions, however, Zephyr remains confident of resolution in either scenario. Given that mandated flaring limits were also reached prior to testing higher production rates, the Group may elect to apply for additional flaring consents in order to restart the test, or otherwise choose to test production when the well is tied in and gas volumes can be sold to market.

## **Slawson-operated interests to more than offset Williston Basin natural production decline**

In anticipation of Williston Basin's production decline (as demonstrated in Q1 2023 results published on 16 May 2023), on 21 December 2022 Zephyr announced its acquisition of interests (ranging 11% to 32%) in 6 wells (equal to 1.1 wells net) operated by Slawson Exploration Co. Inc. (a top basin participant). Management estimates that 2P Reserves acquired amount to c.550,000 boe net to Zephyr.

These are now fully drilled and completed. Production from these working interests had been forecast to come online by July 2023, but this has slipped back by roughly one quarter due to minor delays related to the completion of surface facilities on the well pad. On a pro forma basis in December 2022, inclusive of the Slawson-operated interests, Zephyr had provided a 2023 full-year production forecast of 1,550 to 1,750 boepd for its aggregate Williston Basin interests (net to Zephyr). Now instead forecast to come online in October 2023 (with first revenues accruing to Zephyr in January 2024), producing c.750boe/d net to Zephyr going forward, the Group has already stated it will provide an update in relation to FY 2023 production guidance at that time.

## **Near-term funding gap now plugged**

Today's new funding is designed to bridge the shortfall resulting from both unexpected delays in building-out

surface facilities at the recently acquired Slawson interests, along with additional near-term infrastructure costs plus working capital required to complete the State 36-2 production test following April's well control incident.

At end-December 2022, US\$11.9m cash-in-hand was offset by debt of US\$23.5m with around US\$5m of remaining headroom. In support of the acquisition of the Slawson interests plus their associated capex for the six wells, Zephyr took on a 12-month, US\$8m asset-backed bridge loan provided by a US-based family office which has historically co-invested with certain members of Zephyr's management team on other projects. The loan carries 12% interest and is secured on these wells on which there is also a 1% royalty. It is expected that the loan will be repaid through cash flows or from the Group's existing reserve backed loan facility.

### **Paradox project expected to shortly enter an inflection point**

Two Paradox wells have been drilled to date, both identifying hydrocarbons and appearing capable of commercial production. Although the project still remains relatively early in its 'learning curve', its offering of two forms of development (natural fractures and hydraulically stimulated resource play) along with 8 overlying reservoirs, suggests significant potential upside.

With all key pieces, including acreage and infrastructure, for wider development having been assembled, it seems 2H 2023 will become an inflection point for Paradox as it moves from appraisal into development with both State 36-2 and 16-2 coming online with flush production. Upcoming news flow during this period could possibly include the following:

- State 36-2 well production test results;
- Updated CAPEX and drilling plans (dependent on State 36-2 well production test results);
- Continued progress on the Dominion Energy 16-inch pipeline, which is permitted, currently under construction and expected to be available to accept gas volumes in Q4 2023;
- Updated Competent Persons Report (post State 36-2 well production test); and
- Initial production volumes from the Slawson wells.

Around the same time as Zephyr publishes initial production volumes from the Slawson acquisition, the Group is expected to release updated FY 2023 production guidance for its non-operated assets. Starting 1 April 2023, Zephyr had hedged 164,000 barrels of oil over the following 12 months at a weighted-average price of US\$84.34 per barrel and will continue to evaluate its commodity price risk management strategy on a regular basis. Significantly, the Group is already achieving carbon net zero through an offsetting programme using Verified Emissions Reduction credits.

Although today's modest fund-raising perhaps serves to highlight the present sensitivity of Zephyr's balance sheet to any surprise additional costings and/or delays in anticipated receipts, it nevertheless underlined the fact that management are not prepared to permit any slippage in the Paradox project's development schedule. Despite the fact that the 2023 net average production guidance of 1,550 to 1,750 boepd provided by Zephyr back in December 2022 for its aggregate Williston Basin interests will need to be trimmed back somewhat as a result of slippage in Slawson's initial production, the inclusion of a year-end Paradox Basin run rate of c.3,300 boepd (dependent upon a successful 36-2 production test and completion of all required infrastructure), produces a combined year end exit rate of c.4,800 boepd, representing a c.200% increase on the level being achieved one year previously.

Recognising the pressures and hydrocarbon volumes witnessed during the four day well control incident, Zephyr's Board has also gone on to note that a larger gas processing facility than initially envisaged may be required. The ultimate sizing of any processing facility will be determined post completion of the State 36-2 well test.

On this basis Zephyr's operations could start throwing off quite significant cash early in 2024. Recognising the Group has identified c.150 additional locations across 9 reservoir targets to date, there clearly remains significant scope and scale to be unlocked over the coming years upon delineation and exploration success. Understanding

that the Group is committed to accelerating the Paradox project drilling programme in the optimal way possible and that it is now also exploring partnerships, joint-ventures and farm-in alternatives to support development of what could become the US's next prolific onshore oil & gas play, suggests its shares have now become significantly oversold.

### **Potential Contingent & Prospective Resources worth well in excess of US\$1 billion**

Zephyr's active land management strategy appears to be delivering a defensible and growing portfolio of development opportunities, something which is increasingly difficult to replicate in today's regulatory and political environment. Following recent events, management's immediate focus is on restarting State 36-2 LN-CC's production testing, followed by safely completing the well and the recommissioning of a recently acquired processing plant before being tied-in to gas infrastructure. It remains on schedule to be generating first revenues before the end of 2023.

Publication of the Group's Competent Person's Report ('CPR') 2022 on 26 April 2022, highlighted Zephyr's substantial remaining potential in the Paradox Basin. While the range of values illustrated in Sproule's report presently remain very wide, recognising also that there are still significant underlying technical/operational risks to be surmounted, Zephyr's management and exploration team have demonstrated a high level of intuition along with the capacity to meet and optimise such challenges through carefully calculated process. The drilling programme now underway will enable further delineation and increase overall understanding of the Paradox asset base. Management continues to assess potential upside and will shortly determine additional steps with a view to delivering increases in all reserve and resource classes during 2023.

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