

Stock Data

52-Week Low - High	\$0.46-\$0.95
Shares Out. (mil)	81.44
Mkt. Cap.(mil)	\$57.01
3-Mo. Avg. Vol.	82,262
12-Mo.Price Target	\$2.00
Cash (mil)	\$0.0
Tot. Debt (mil)	\$0.0

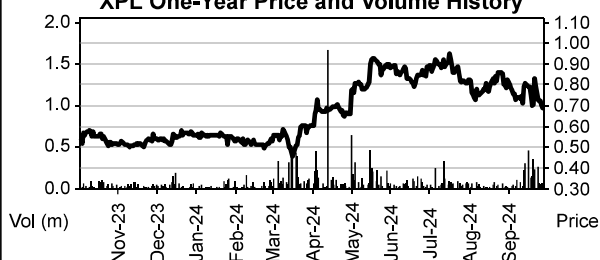
Cash does not include \$8.1 million in short-term investments and investments in marketable equity securities

Rev (\$M)

Yr Dec	— 2023—	— 2024E—	— 2025E—
		Curr	Curr
1Q	0.0A	0.0A	0.0E
2Q	0.0A	0.0A	0.0E
3Q	0.0A	0.0E	0.0E
4Q	0.0A	0.0E	0.0E
YEAR	0.0A	0.0E	0.0E

EPS \$

Yr Dec	— 2023—	— 2024E—	— 2025E—
		Curr	Curr
1Q	(0.01)A	(0.01)A	(0.01)E
2Q	(0.02)A	(0.01)A	(0.01)E
3Q	(0.02)A	(0.02)E	(0.02)E
4Q	(0.01)A	(0.02)E	(0.02)E
YEAR	(0.05)A	(0.06)E	(0.07)E

XPL One-Year Price and Volume History


XPL: Initial Drilling Confirms Gold Discovery

XPL drilled its first three holes at its Golden Crest Project in South Dakota and discovered high-grade gold. These are the first holes drilled on its ~54.7 square mile project, a potential extension of the Homestake-Wharf mining district with 52 million oz of gold production. The results are part of its 5,000m 2024 Phase 1 drill program. In 2024, XPL plans to drill up to four of its nearly two dozen targets. We believe the Golden Crest Project is highly prospective for gold exploration.

Auspicious initial drill results. From a single drill pad, XPL drilled three holes with a combined length of 963.5m. All three holes intersected near the surface and had significant grades of gold and widths of oxidized material, two of which included high grades over meaningful widths. While early, the results suggest the formation of a small open pit. More importantly, the discovery confirms the validity of the potential for mineralization to continue deeper from areas of high-grade surface sampling. Given the characteristics of the district, this may suggest proximity to feeders linking with deeper sub-horizontal mineralization in stratigraphic sequences. Highlights from the initial drilling are as follows:

GC-001 – grading 1.68 g/t gold over 32.0m from 9.1m, including 3.1 g/t gold over 14.2m from 10.7m.

GC-002 – grading 1.88 g/t gold over 9.9m from 23.3m.

GC-003 – grading 2.56 g/t gold over 26.4m from 5.0m, including 4.18 g/t gold over 14.4m from 11.4m.

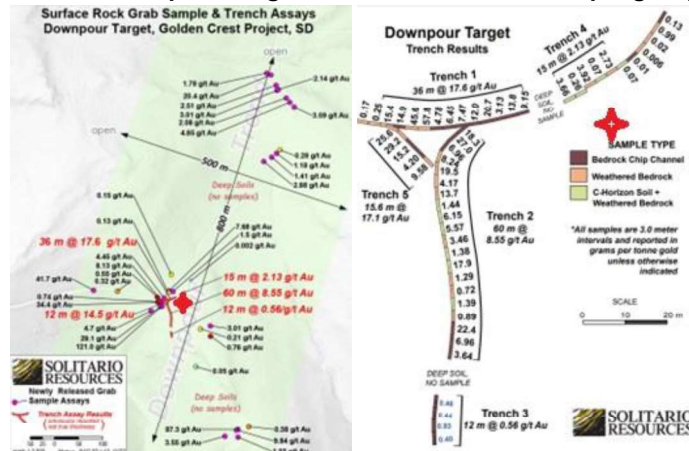
Just a start. In three years, XPL has identified approximately two dozen targets from surface sample programs conducted from U.S. Forest Service (USFS) roads. It believes these targets are within an area of gold bearing hydrothermal alteration of over 30 square miles. This presents the potential for the Golden Crest Project to be part of a major new district-scale extension of the Homestake-Wharf super giant gold district.

XPL's 2024 Phase 1 drill program may be transformative. We anticipate that the remainder of its 5,000m drill program may include up to four other targets with the characteristics of high-grade gold samples at surface. As these may be completed in a similar fan pattern, XPL could end the year demonstrating the prospect of a project meriting a much larger drill program to flush out the potential opportunity. Of ten broad targets, we believe two are permitted to drill (Downpour and Eleventh Hour), four are in the process of being permitted to drill in 2025, and four others are in the process of application.

We maintain our Buy rating and price target of \$2.00 per share. Our valuation is based on the sum of the parts, which include XPL's two development stage zinc projects, in partnership with major mining companies, and the prospective Golden Crest Project.

Initial drilling targeted the Downpour Zone. This zone emerged from a surface sampling and channel sampling from five trenches. The red stars in Exhibit 1 show plan views of trenching and surface sampling with the approximate location of the drill pad to the southeast of Trench 1 and Trench 4, with channel sample results of 17.60 g/t gold over 36m and 2.18 g/t gold over 15m, respectively.

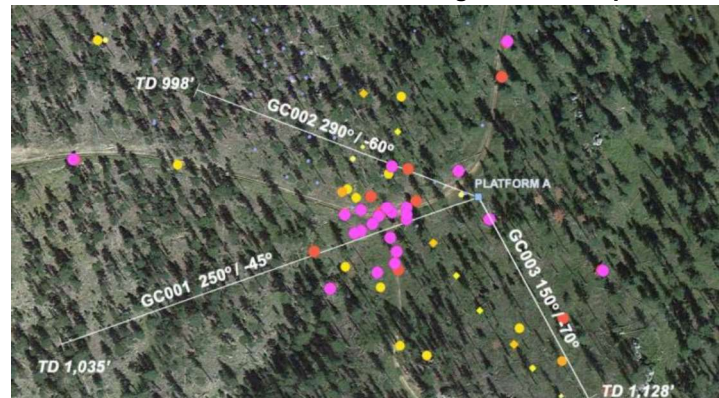
Exhibit 1 Downpour Target Trench and Surface Sampling Maps



Source: Solitario Resources Corp., Press release July 15, 2024 ([link](#))

Exhibit 2 shows an aerial view of the location of the drill pad, hole locations and surface sampling. The holes GC001 and GC002 were drilled in close proximity and under Trench 1 and Trench 4.

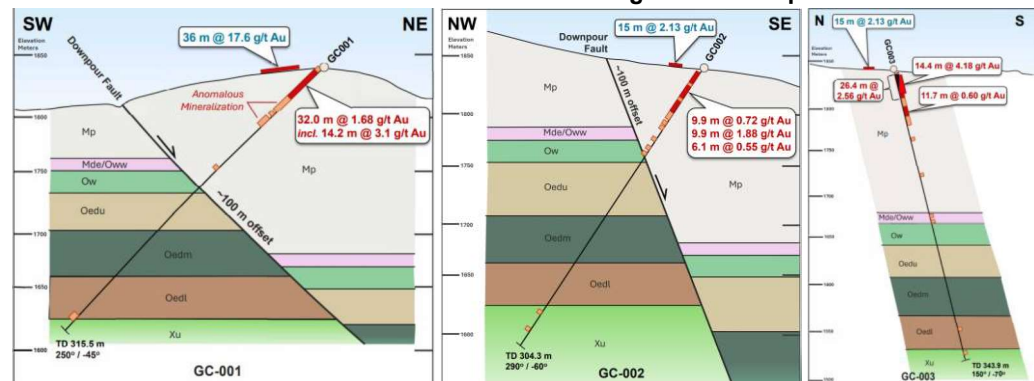
Exhibit 2: Aerial View of Initial Drill Program at Downpour Zone



Source: Solitario Resources Corp., Press release September 16, 2024 ([link](#))

Exhibit 3 shows cross sections of the initial three holes at the Downpour Zone. The cross sections show the potential for both critical mass and the opportunity for locating a feeder, which we expect XPL to follow up on, with prioritization of other reconnaissance drill programs.

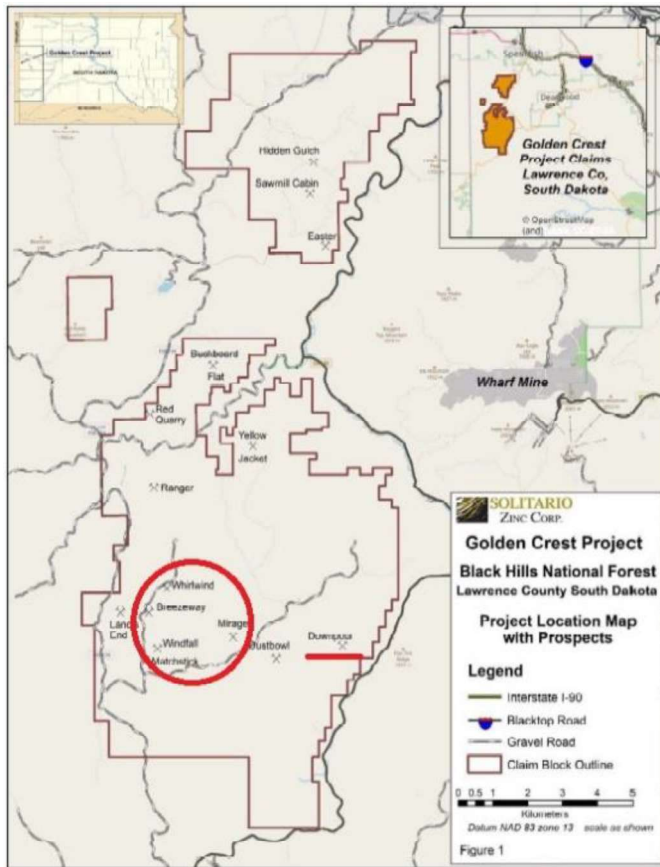
Exhibit 3: Cross Sections of Initial Drill Program at Downpour Zone



Source: Solitario Resources Corp., Press release September 16, 2024 ([link](#))

Initial drill program at the Downpour Zone is just a start. The Downpour Zone is part of an 800m long and 500m wide corridor. Within this area, XPL collected surface grab samples, with seven samples over 10.0 g/t gold, 16 above 3.0 g/t gold and 25 samples above 1/0 g/t gold. Exhibit 4 shows other drill targets which we believe XPL may test in 2024 including Whirlwind, Matchstick and Mirage. Like the Downpour Zone, these targets have not been drilled before.

Exhibit 4: Phase 1 2024 Drill Program



Source: USFS - Final Environmental Assessment, Golden Crest Project, April 29, 2024

Exhibit 5 is a table of XPL’s current targets and permitting status at the Golden Crest Project. The table provides details on earlier sampling programs yielding high grade gold results. We believe that the recent results from the Downpour Zone are just the start.

Exhibit 5: Golden Crest Project Targets and Permitting Status

Top 10 Targets	Year Discovered	Size (acres)	# Samples +1 g/t Au	# Samples +5 g/t Au	Permitted on Golden Crest POO	Permitting in Progress on Ponderosa POO	Remains to be Permitted
Geyser	2022	280	102	45		✓	
Downpour	2021	20	46	25	✓		
Sleeping Beauty	2023	260	30	7		✓	
Holland	2023	197	22	10		✓	
Wildcat	2023	95	12	10		✓	
Top Dollar	2023/24	15	7	6			✓
Wild Rose	2023	140	34	11			✓
Eleventh Hour	2021	45	63	20	✓		
Iris	2024	178	22	2			✓
Moonlight	2024	337	4	1			✓

Source: Solitario Resources Corp., Press release September 16, 2024 ([link](#))

VALUATION

Our valuation assessment of XPL is based on the sum-of-the-parts approach. We speculate there is the potential for a three to six million oz gold target for the Golden Crest Project. Based on \$25 per oz and 81.4 million outstanding shares, a three million oz target would imply a value of \$75 million, and \$0.92 per share. Given XPL's interest carried to production, we conclude NEXA's acquisition of the Aripuanã project to be a reasonable comparison, implying a contribution of \$69.3 million or ~\$0.85 per share. Based on XPL's 50% ownership of the Lik Zinc Project, and 0.35x or adjusted NAV of ~\$100 million, we estimate a current value to XPL of \$35 million, or \$0.43 per share. Though the sum of our estimates for XPL's three projects total \$2.20 per share, we round down to \$2.00 per share. We maintain our Buy rating and price target of \$2.00 per share.

Factors that could impede XPL from achieving our price target include but are not limited to the inability to define additional resources, declining gold and silver prices, inability to access additional capital and exploration risk, the risk of permitting and litigation on land leased from the U.S. Forest Service, and timing of joint venture partner decisions outside of XPL's control.

RISKS

Political risk. Natural resource companies are subject to significant political risk. Although most mining jurisdictions have known laws, potential exists for these laws to change.

Commodity price risk. All natural resource companies have some form of commodity price risk. This risk is not only related to final products but can also be in regard to input costs and substitute goods.

Operational and technical risk. Natural resources companies have significant operational and technical risks. Despite completing NI 43-101 compliant (or similar) resource estimates, deposits can still vary significantly compared to expectations. Additionally, numerous unforeseeable issues can occur with operations and exploration activities.

Pre-revenue risk. Pre-revenue natural resource companies are dependent on available cash, marketable assets and the ability to borrow or sell equity into capital markets to fund development including exploration and construction. There is no guarantee that the company will become cash flow positive.

Market risk. Although most natural resource companies are more closely tied to individual commodity price performance, large business cycle forces or economic crises can impact a company's valuation significantly.

Cautionary Note to US Investors: Estimates of Measured, Indicated and Inferred Resources

"Measured Mineral Resources" and "Indicated Mineral Resources." U.S. investors are advised that although these terms are required by Canadian regulations, the U.S. Securities and Exchange Commission (SEC) does not recognize them and describes the equivalent as "Mineralized Material." U.S. investors are cautioned not to assume that these terms are any form of guarantee.

"Inferred Mineral Resources." U.S. Investors are advised that while this term is required by Canadian regulations, the SEC does not recognize it. "Inferred Mineral Resources" are not delineated with a great deal of certainty and should not be considered likely to be brought into production in whole or in part.

COMPANY DESCRIPTION

XPL is a natural resource exploration company focused on high-quality gold and zinc exploration projects. Its Golden Crest Project in South Dakota covers 52 square miles and is located adjacent to the Homestake/Wharf mining district. XPL holds a 50% joint venture interest (TECK 50%) in the high-grade Lik Zinc Project in Alaska and a 39% joint venture interest (NEXA 61%) in the high-grade Florida Canyon zinc project in Peru. At Florida Canyon, XPL is carried to production by NEXA through its joint venture agreement.

Amounts in \$ million	XPL Income Statement														
	1Q23A	2Q23A	3Q23A	4Q23A	2023A	1Q24A	2Q24A	3Q24A	4Q24A	2024E	1Q25E	2Q25E	3Q25E	4Q25E	2025E
Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Expenses	0.8	0.9	1.2	1.3	4.1	0.8	1.1	1.5	2.0	5.4	1.1	1.1	2.0	2.0	6.1
Operating Income	(0.8)	(0.9)	(1.2)	(1.3)	(4.1)	(0.8)	(1.1)	(1.5)	(2.0)	(5.4)	(1.1)	(1.1)	(2.0)	(2.0)	(6.1)
Other Expenses	0.4	(0.2)	(0.1)	0.2	0.4	0.1	0.4	0.1	0.1	0.7	0.1	0.1	0.1	0.1	0.4
Pretax Income	(0.4)	(1.0)	(1.3)	(1.0)	(3.8)	(0.7)	(0.8)	(1.4)	(1.9)	(4.7)	(1.0)	(1.0)	(1.9)	(1.9)	(5.7)
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	(0.4)	(1.0)	(1.3)	(1.0)	(3.8)	(0.7)	(0.8)	(1.4)	(1.9)	(4.7)	(1.0)	(1.0)	(1.9)	(1.9)	(5.7)
Basic EPS	(\$0.01)	(\$0.02)	(\$0.02)	(\$0.01)	(\$0.05)	(\$0.01)	(\$0.01)	(\$0.02)	(\$0.02)	(\$0.06)	(\$0.01)	(\$0.01)	(\$0.02)	(\$0.02)	(\$0.07)
FD EPS	(\$0.01)	(\$0.02)	(\$0.02)	(\$0.01)	(\$0.05)	(\$0.01)	(\$0.01)	(\$0.02)	(\$0.02)	(\$0.06)	(\$0.01)	(\$0.01)	(\$0.02)	(\$0.02)	(\$0.07)

Source: XPL SEC filings, press releases and ROTH Capital Partners estimates

Note: XPL reports under GAAP, December fiscal year end

Quarterly EPS may not sum to annual EPS due to rounding

Mike Niehuser

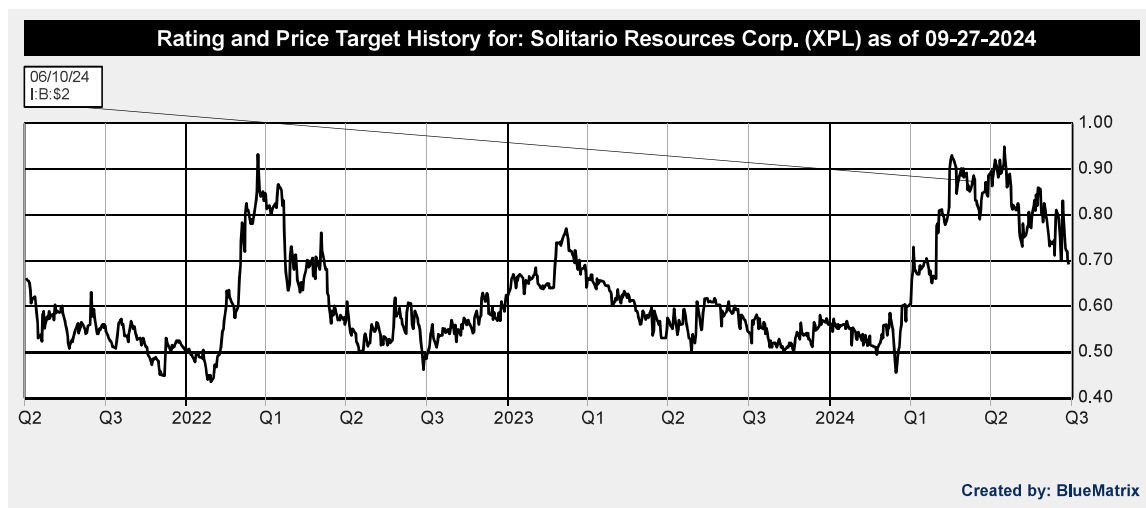
mniehuser@roth.com

(949) 402-5336

Regulation Analyst Certification ("Reg AC"): The research analyst primarily responsible for the content of this report certifies the following under Reg AC: I hereby certify that all views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

Disclosures:

Shares of Solitario Resources Corp. may be subject to the Securities and Exchange Commission's Penny Stock Rules, which may set forth sales practice requirements for certain low-priced securities.



Each box on the Rating and Price Target History chart above represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first note written during the past three years. **Distribution Ratings/IB Services** shows the number of companies in each rating category from which Roth or an affiliate received compensation for investment banking services in the past 12 month.

Distribution of IB Services Firmwide

Rating	Count	Percent	IB Serv./Past 12 Mos. as of 09/30/2024	
			Count	Percent
Buy [B]	362	74.33	109	30.11
Neutral [N]	75	15.40	6	8.00
Sell [S]	2	0.41	0	0
Under Review [UR]	48	9.86	1	2.08

Our rating system attempts to incorporate industry, company and/or overall market risk and volatility. Consequently, at any given point in time, our investment rating on a stock and its implied price movement may not correspond to the stated 12-month price target.

Ratings System Definitions - ROTH Capital employs a rating system based on the following:

Buy: A rating, which at the time it is instituted and or reiterated, that indicates an expectation of a total return of at least 10% over the next 12 months.

Neutral: A rating, which at the time it is instituted and or reiterated, that indicates an expectation of a total return between negative 10% and 10% over the next 12 months.

Sell: A rating, which at the time it is instituted and or reiterated, that indicates an expectation that the price will depreciate by more than 10% over the next 12 months.

Under Review [UR]: A rating, which at the time it is instituted and or reiterated, indicates the temporary removal of the prior rating, price target and estimates for the security. Prior rating, price target and estimates should no longer be relied upon for UR-rated securities.

Not Covered [NC]: ROTH Capital does not publish research or have an opinion about this security.

ROTH Capital Partners, LLC expects to receive or intends to seek compensation for investment banking or other business relationships with the covered companies mentioned in this report in the next three months. The material, information and facts discussed in this report other than the information regarding ROTH Capital Partners, LLC and its affiliates, are from sources believed to be reliable, but are in no way guaranteed to be complete or accurate. This report should not be used as a complete analysis of the company, industry or security discussed in the report. Additional information is available upon request. This is not, however, an offer or solicitation of the securities discussed. Any opinions or estimates in this report are subject to change without notice. An investment in the stock may involve risks and uncertainties that could cause actual

results to differ materially from the forward-looking statements. Additionally, an investment in the stock may involve a high degree of risk and may not be suitable for all investors. No part of this report may be reproduced in any form without the express written permission of ROTH. Copyright 2024. Member: FINRA/SIPC.