

JAGUAR MINING PROVIDES UPDATE ON FAINA ACCESS AND INTERSECTS HIGH GRADES IN DEVELOPMENT AND DIAMOND DRILL HOLES

DEVELOPMENT CHANNEL SAMPLES - H LENS

- 14.42 g/t Au over an estimated true channel width of 6.75m
- 13.31 g/t Au over an estimated true channel width of 6.40m

DIAMOND DRILLING - J LENS

- 20.17 g/t Au over an estimated true width of 6.62m in hole FAI0018
- 8.54 g/t Au over an estimated true width of 4.72m in hole FAI0020
- 6.46 g/t Au over an estimated true width of 9.66m in hole FAI0024

Toronto, May 21, 2024 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG, OTCQX: JAGGF) is pleased to provide an update and announce that access development and concomitant mineral resource delineation diamond drilling has intersected high-grade mineralization at its Faina Project ("Faina"). Faina is part of the Company's MTL Mining Complex which also includes its Turmalina Mine, and is located in the state of Minas Gerais, Brazil, approximately 130 kilometers northwest of the city of Belo Horizonte.

In December 2023, the Company released an NI 43-101 Technical Report (see Press Release dated December 18, 2023) announcing Probable Mineral Reserves for Faina of 132 koz (787 kt @ 5.22 g/t Au), Measured and Indicated Mineral Resources of 233 koz (1,427 kt @ 5.08 g/t Au) and Inferred Mineral Resources of 232 koz (1,420 kt @ 5.09 g/t Au).

Since development of the project commenced in 2022, approximately 3,760m of primary access development from the Turmalina Mine to Faina has been achieved, and a further 1,700m of development is planned for 2024, including approximately 560m of secondary productive development. To date, the Company has invested approximately US\$15 million in capital at Faina which has mainly been divided between infill resource definition drilling, metallurgical testwork, access development and studies.

Vern Baker, President, and CEO of Jaguar Mining stated: "We are delighted to have reached high grade mineralization in Faina access development and definition diamond drilling. Primary access development and infill diamond drilling will continue to open and better define the mineralized areas through 2024 as the project ramps up to planned production levels in 2025. Our initial plan is to feed mined material through our MTL mill while continuing with focused metallurgical testwork which will inform longer term processing options. Going forward exploration will focus on expanding the Mineral Resources inventory at Faina as well as conversion of Inferred Mineral Resources to higher classification categories."

Figure 1. Location of the MTL Mining Complex, Turmalina Mine and Faina Project relative to Jaguar's other operational areas in Minas Gerais, Brazil

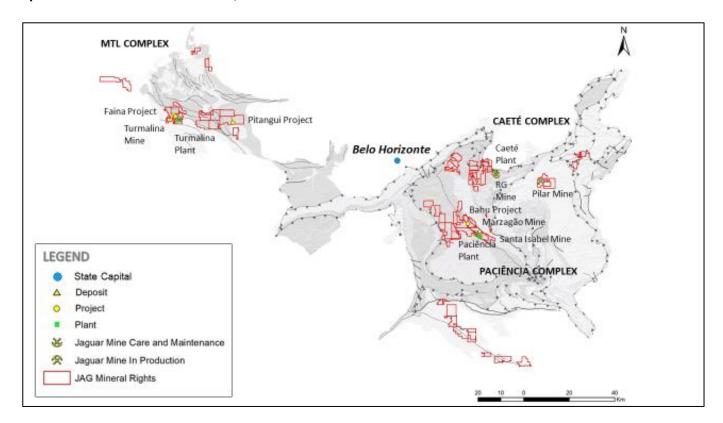


Figure 2. Location of the Faina Project relative to Jaguar's MTL Mining Complex and Turmalina Mine

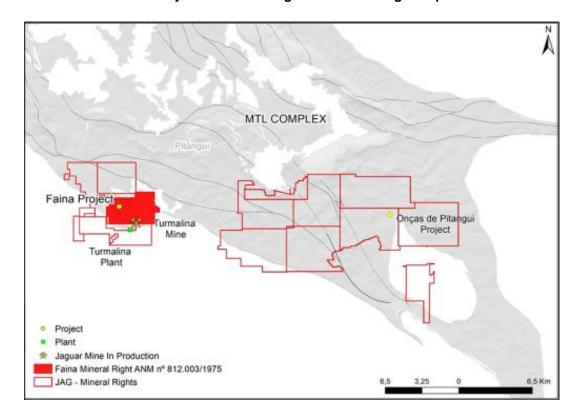
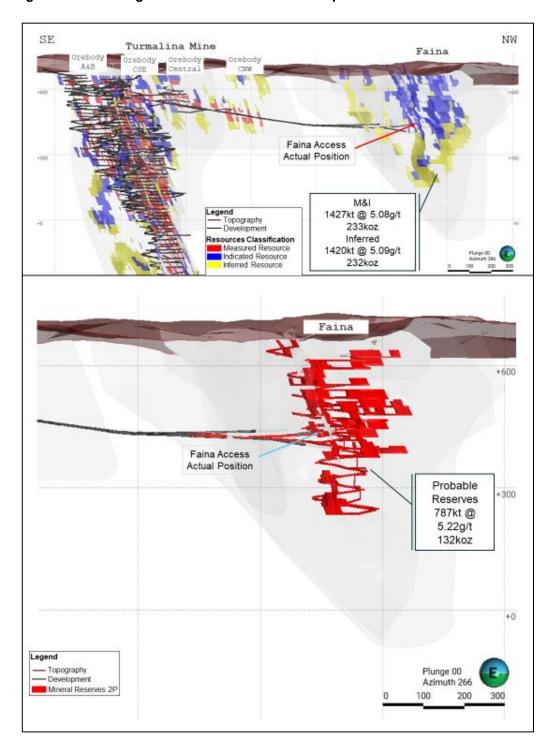


Figure 3. Long Section showing the location of access development from Turmalina Mine to Faina



Faina Mineralization

Gold mineralization is hosted within a series of six separate structurally and stratigraphically controlled mineralized lenses defined as lens E (undifferentiated chemical sediments), and lens F to lens J (meta-mafic rocks). These mineralized lenses occur over several stratigraphic intervals within a mafic volcanic package (amphibolite facies) and are characterized by very fine to fine grained massive to disseminated sulfide rich zones which are both conformable and unconformable with bedding, often accompanied by quartz veinlets and stringers. Sulfides are generally 5-10% of the rock mass within the better mineralized zones with the dominant sulfide minerals being arsenopyrite, pyrrhotite and at times courser grained 1-2cm crosscutting stringers of the antimony bearing minerals stibnite and berthierite are observed. Individual lenses vary in width both along strike and down dip / plunge from less than 1m to greater than 10m with the thicker and higher-grade lenses associated with fold hinges.

Faina Diamond Drilling and Channel Sampling Results

Resource definition diamond drilling successfully intersected the J lens, I lens and H lens as modelled. High grade intercepts with grade x thickness (GT) values greater than 25 (GT) are tabulated below in Table 1. A plan view showing the location of the target lens and diamond drill impact results is presented below in Figure 4.

Figure 4. Plan view showing the location of access development from Turmalina Mine to Faina and diamond drilling intersections. Note that high grade mineralization has been intersected in preliminary development on the H lens, see Figure 7 for detail.

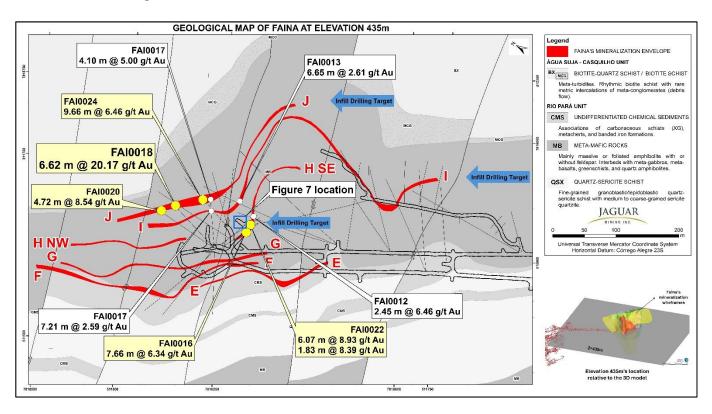


Table 1. Significant diamond drilling impacts with grade x thickness (GT) > 25

	Summary of Significant Intersections, Drilling Program Jaguar Mining Inc. – Turmalina Mine-Faina											
Hole ID	From (m)	To (m)	DownHole Interval (m)	Estimated True Width (m)	Gold Grade (g/t Au)	GT (ETW)	Date (mm/dd/yyyy)	Orebody	Laboratory (Internal or ALS)	Drilling Company		
FAI0016	41.70	50.21	8.51	7.66	6.34	49	February 27, 2024	Faina-Lens H (Middle)	Internal	JAGUAR		
FAI0018	85.02	93.02	8.00	6.62	20.17	134	April 5,2024	Faina-Lens H (Middle)	Internal	JAGUAR		
FAI0020	90.80	95.57	4.77	4.72	8.54	40	April 5,2024	Faina-Lens J (HHW)	Internal	JAGUAR		
FAI0022	48.97	56.11	7.14	6.07	8.93	54	April 5,2024	Faina-Lens H (Middle)	Internal	JAGUAR		
	71.24	73.75	2.51	1.58	1.82	3	April 22,2024	Faina-Lens I (HW)	Internal	JAGUAR		
FAI0024	85.10	97.80	12.70	9.66	6.46	62	April 22,2024	Faina-Lens J (HHW)	Internal	JAGUAR		
	100.58	104.15	3.57	no lens	1.82	no lens	April 22,2024	Faina-no lens	Internal	JAGUAR		

Faina Lens H Development Channel Sample Results

Positive channel sampling results have been intersected in initial mineralized development on Lens H. The individual sample results and composites are presented in Figure 7 below and tabulated in Appendix 2, Table 4.

Figure 5. Faina Lens H development. Plan showing the location and results of development face channel sampling

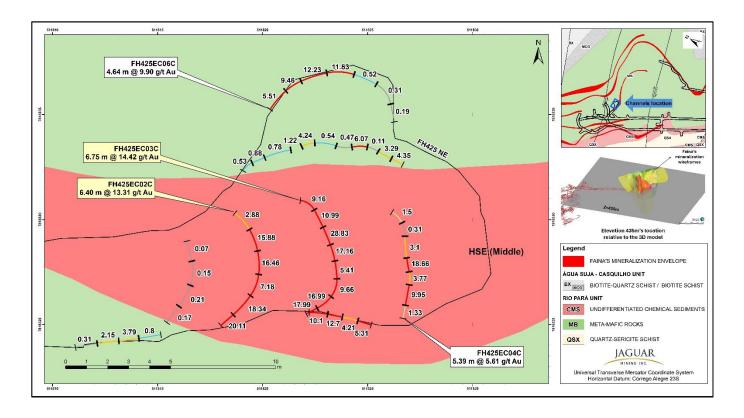
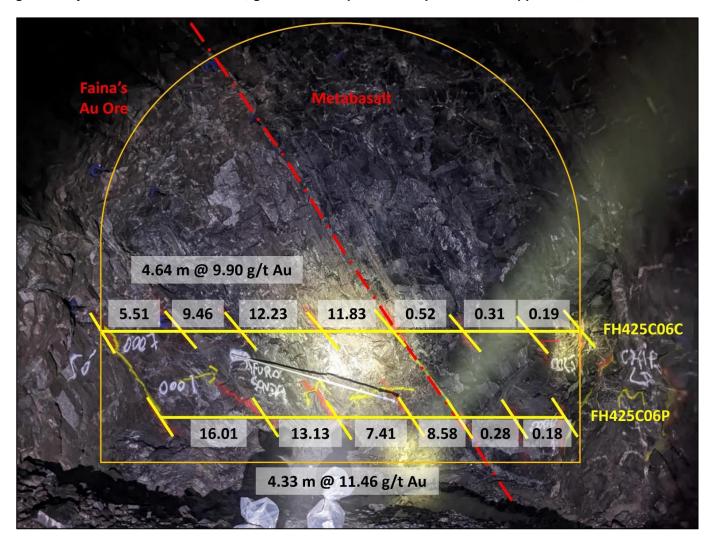


Figure 6. Lens H development. A = Faina's sulphide-rich hydrothermalite Au ore exposed in gallery FH435. Note multiple laminae of tiny arsenopyrite crystals aggregate. B = Faina's footwall style of mineralization: sulphide (pyrrhotite-rich) metachert. C = Faina rock chip sample from lens H with a grade of 17.99 g/t Au.



Figure 7. Faina development gallery (intersecting H lens), showing the channels with individual sample gold assay results. Detailed location, grade and sample data are presented in Appendix 2, Table 4.



Qualified Person

Scientific and technical information contained in this press release has been reviewed and approved by Jonathan Victor Hill, BSc (Hons) (Economic Geology - UCT), FAUSIMM, Advisor Exploration and Geology to Jaguar Mining Inc., and is a "qualified person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

The Iron Quadrangle

The Iron Quadrangle has been an area of mineral exploration dating back to the 16th century. The discovery in 1699–1701 of gold contaminated with iron and platinum-group metals in the southeastern corner of the Iron Quadrangle gave rise to the name of the town Ouro Preto (Black Gold). The Iron Quadrangle contains world-class multi-million-ounce gold deposits such as Morro Velho, Cuiabá, and São Bento.

About Jaguar Mining Inc.

Jaguar Mining Inc. is a Canadian-listed junior gold mining, development, and exploration company operating in Brazil with three gold mining complexes and a large land package with significant upside exploration potential from mineral claims. The Company's principal operating assets are located in the Iron Quadrangle, a prolific greenstone belt in the state of Minas Gerais and include the MTL Mining Complex (Turmalina Mine and Plant) and Caeté Mining Complex (Pilar and Roça Grande Mines, and Caeté Plant). The Company also owns the Paciência Mining Complex, which has been on care and maintenance since 2012. The Roça Grande Mine has been on temporary care and maintenance since April 2019. Additional information is available on the Company's website at www.jaguarmining.com.

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Forward-Looking Statements

Certain statements in this news release constitute "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking statements and information are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking information made in this news release is qualified by the cautionary statements below and those made in our other filings with the securities regulators in Canada. Forward-looking information contained in forward-looking statements can be identified by the use of words such as "are expected," "is forecast," "is targeted," "approximately," "plans," "anticipates," "projects," "anticipates," "continue," "estimate," "believe" or variations of such words and phrases or statements that certain actions, events or results "may," "could," "would," "might," or "will" be taken, occur or be achieved. All statements, other than statements of historical fact, may be considered to be or include forward-looking information. This news release contains forward-looking information regarding, among other things, the duration of the temporary suspension of the Company's 2023 production guidance in ounces and costs, the expected future release of new guidance for 2023, the anticipated impact of planned changes in mining systems and cost cutting initiatives on the Company's future performance and production results, information related to expected sales, production statistics, ore grades, tonnes milled, recovery rates, cash operating costs, definition/delineation drilling, the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of projects and new deposits, success of exploration, development and mining activities, currency fluctuations, capital requirements, project studies, mine life extensions, restarting suspended or disrupted operations, continuous improvement initiatives, and resolution of pending litigation. The Company has made numerous assumptions with respect to forward-looking information contained herein, including, among other things, assumptions about the estimated timeline for the development of its mineral properties; the supply and demand for, and the level and volatility of the price of, gold; the accuracy of reserve and resource estimates and the assumptions on which the reserve and resource estimates are based; the receipt of necessary permits; market competition; ongoing relations with employees and impacted communities; political and legal developments in any jurisdiction in which the Company operates being consistent with its current expectations including, without limitation, the impact of any potential power rationing, tailings facility regulation, exploration and mine operating licenses and permits being obtained and renewed and/or there being adverse amendments to mining or other laws in Brazil and any changes to general business and economic conditions. Forward-looking information involves a number of known and unknown risks and uncertainties, including among

others: the risk of Jaguar not meeting the forecast plans regarding its operations and financial performance; uncertainties with respect to the price of gold, labour disruptions, mechanical failures, increase in costs, environmental compliance and change in environmental legislation and regulation, weather delays and increased costs or production delays due to natural disasters, power disruptions, procurement and delivery of parts and supplies to the operations; uncertainties inherent to capital markets in general (including the sometimes volatile valuation of securities and an uncertain ability to raise new capital) and other risks inherent to the gold exploration, development and production industry, which, if incorrect, may cause actual results to differ materially from those anticipated by the Company and described herein. In addition, there are risks and hazards associated with the business of gold exploration, development, mining and production, including environmental hazards, tailings dam failures, industrial accidents and workplace safety problems, unusual or unexpected geological formations, pressures, cave-ins, flooding, chemical spills, procurement fraud and gold bullion thefts and losses (and the risk of inadequate insurance, or the inability to obtain insurance, to cover these risks). Accordingly, readers should not place undue reliance on forward-looking information.

For additional information with respect to these and other factors and assumptions underlying the forward-looking information made in this news release, see the Company's most recent Annual Information Form and Management's Discussion and Analysis, as well as other public disclosure documents that can be accessed under the issuer profile of "Jaguar Mining Inc." on SEDAR+ at www.sedarplus.ca. The forward-looking information set forth herein reflects the Company's reasonable expectations as at the date of this news release and is subject to change after such date. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law. The forward-looking information contained in this news release is expressly qualified by this cautionary statement.

APPENDIX 1

Table 2. Faina Diamond Drilling Results

	Summary of Significant Intersections, Drilling Program Jaguar Mining Inc. – Turmalina Mine-Faina											
Hole ID	From (m)	To (m)	DownHole Interval (m)	Estimated True Width (m)	Gold Grade (g/t Au)	GT (ETW)	Date (mm/dd/yyyy)	Orebody	Laboratory (Internal or ALS)	Drilling Company		
FAI0001	114.76	117.63	2.87	2.61	1.27	3.31	August 10, 2023	Faina-I lens (HW)	Internal	JAGUAR		
FAI0002	100.98	105.05	4.07	4.06	1.60	6.50	August 18, 2023	Faina-I lens (HW)	Internal	JAGUAR		
	55.20	58.90	3.70	0.82	3.32	2.72		Faina-no lens				
FAI0003	69.00	77.55	8.55	5.98	2.27	13.57	October 11, 2023	Faina-I lens (HW)	Internal	JAGUAR		
PAIUUUS	82.28	89.15	6.87	0.11	2.32	0.26	October 11, 2023	Faina-no lens	internal	JAGUAK		
	95.25	100.42	5.17	1.50	2.73	5.57		Faina-no lens				
FAI0004				October 16, 2023	Internal	JAGUAR						
FAI0005				NO IMPACT			December 4, 2023	Faina-no impact	Internal	JAGUAR		
FAI0006				NO IMPACT			December 20, 2023	Faina-no impact	Internal	JAGUAR		
FAI0007	38.20	49.90	11.70	4.37	0.85	3.71	D	Faina-I lens (HW)	Internal	JAGUAR		
FAIUUU7	54.28 58.40 4.12		4.12	0.92	4.41	4.06	December 27, 2023	Faina-no lens	Internal	JAGUAR		
FAI0010	13.95	17.40	3.45	3.26	4.52	14.74	January 5, 2024	Faina-I lens (HW)	Internal	JAGUAR		
FAI0008	8.15	9.67	1.52									
FAI0009				NO IMPACT		January 14, 2024	Faina-no impact	Internal	JAGUAR			
FAI0012	138.33	140.00	1.67	2.45	2.45 6.46 15.83 January 20, 2024 Faina-H lens (Middle)							
FAI0011				NO IMPACT		January 28, 2024	Faina-no impact	Internal	JAGUAR			
FA10043	144.23 145.70 1.47		1.47	1.33	3.62	4.81	February 7, 2024	Faina-H lens (Middle)	Internal	JAGUAR		
FAI0013	164.16	171.10	6.94	.94 6.65 2.61 17.36 February 7, 20.			February 7, 2024	Faina-I lens (HW)	Internal	JAGUAK		
FAI0015				NO IMPACT		February 27, 2024	Faina-no impact	Internal	JAGUAR			
FAI0016	41.70	50.21	8.51	7.66	6.34	48.56	February 27, 2024	Faina-H lens (Middle)	Internal	JAGUAR		
	163.25	165.34	2.09	2.07	1.28	2.65		Faina-H lens (Middle)		JAGUAR		
FAI0014	185.60	189.38	3.78	3.72	1.82	6.77	March 7, 2024	Faina-I lens (HW)	Internal			
	56.12	63.33	7.21	7.15	2.59	18.52	April 2, 2024	Faina-I lens (HW)	Internal			
FAI0017	65.82	70.10	4.28	4.10	5.00	20.50	1	Faina-J lens (HHW)		JAGUAR		
	75.87	77.58	1.71	1.70	3.90	6.63		Faina-no lens				
FA10040	61.47	65.97	4.50	4.40	1.35	5.94	April 5, 2024	Faina-I lens (HW)				
FAI0018	85.02	93.02	8.00	6.62	20.17	133.53		Faina-J lens (HHW)		JAGUAR		
FAI0019	69.62	74.71	5.09	4.29	2.27	9.74		Faina-J lens (HHW)	Internal			
FAI0020	90.80	95.57	4.77	4.72	8.54	40.31		Faina-J lens (HHW)				
FAI0022	48.97	56.11	7.14	6.07	8.93	54.21	April 5,2024	Faina-H lens (Middle)	Internal	JAGUAR		
	57.95	60.10	2.15	1.83	8.39	15.35	P -7	, ,				
FAI0021	40.98	43.30			7.85		April 5,2024	Faina-no lens Interna		JAGUAR		
	72.83	75.71	2.88	2.86	5.32	15.22 Faina-H lens (Middle)		internal				
FAI0023	14.36	16.30	1.94	1.91	1.63	3.11			Internal	JAGUAR		
FAI0025	20.26	22.15	1.89	no lens	2.52	no lens	April 8,2024	Faina-no lens	Internal	JAGUAR		
FAI0026	108.22	110.77	2.55	1.62	0.92	1.49	April 9,2024	Faina-G lens (MF)	Internal	JAGUAR		
	71.24	73.75	2.51	1.58	1.82	2.88	April 22,2024	Faina-H lens (Middle)	Internal	JAGUAR		
FAI0024	85.10	97.80	12.70	9.66	6.46	62.40	April 22,2024	Faina-J lens (HHW)	Internal	JAGUAR		
	100.58	104.15	3.57	no lens	1.82	no lens	April 22,2024	Faina-no lens	Internal	JAGUAR		

Table 3. Faina Diamond Drilling Location Data

II ala ID	Easting	Northing	Elevation	Total Depth	Collar Dip	Collar Azimuth	Ourala a alco	Deillia a Common.		
Hole ID	(m)	(m)	(m)	(m)	(°)	(°)	Orebody	Drilling Company		
FAI0001	511904	7818046	430	164.64	6	55	Faina	Jaguar Mining		
FAI0002	511904	7818047	430	164.20	7	40	Faina	Jaguar Mining		
FAI0003	511903	7818111	422	137.55	11	45	Faina	Jaguar Mining		
FAI0004	511903	7818111	424	120.45	33	25	Faina	Jaguar Mining		
FAI0005	511870	7818172	420	145.10	10	69	Faina	Jaguar Mining		
FA10006	511955	7818182	437	207.20	5	312	Faina	Jaguar Mining		
FA10007	511960	7818185	437	86.10	-3	28	Faina	Jaguar Mining		
FA10008	511960	7818183	438	50.40	7	60	Faina	Jaguar Mining		
FA10009	511988	7818107	436	73.00	5	70	Faina	Jaguar Mining		
FAI0010	511980	7818129	436	70.05	3	60	Faina	Jaguar Mining		
FAI0011	511995	7818084	435	70.13	4	70	Faina	Jaguar Mining		
FAI0012	511869	7818189	420	166.43	5	345	Faina	Jaguar Mining		
FAI0013	511870	7818190	420	233.37	3	352	Faina	Jaguar Mining		
FAI0014	511871	7818191	420	217.34	3	12	Faina	Jaguar Mining		
FAI0015	511869	7818189	420	9.50	4	31	Faina	Jaguar Mining		
FAI0016	511775	7818345	438	67.03	-5	115	Faina	Jaguar Mining		
FAI0017	511768	7818355	440	86.30	-1	55	Faina	Jaguar Mining		
FAI0018	511768	7818356	440	99.13	-3	17	Faina	Jaguar Mining		
FAI0019	511769	7818354	440	89.23	-1	70	Faina	Jaguar Mining		
FA10020	511768	7818356	440	114.77	-4	4	Faina	Jaguar Mining		
FAI0021	511778	7818349	442	75.71	3	114	Faina	Jaguar Mining		
FAI0022	511777	7818348	442	71.05	-13	109	Faina	Jaguar Mining		
FAI0023	511763	7818352	440	99.74	-2	240	Faina	Jaguar Mining		
FAI0024	511807	7818354	402	104.15	-5	20	Faina	Jaguar Mining		
FAI0025	511764	7818357	444	131.45	-1	275	Faina	Jaguar Mining		
FAI0026	511762	7818353	441	144.29	0	286	Faina	Jaguar Mining		

APPENDIX 2

Table 4. Faina Development Sampling Location Data and Results Lense H (Middle)

	Location data						Summary of channel intersections							
Hole ID	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Level	From (m)	To (m)	Channel Interval (m)	Estimated True Width (m)	Gold Grade (g/t Au)	GT (ETW)	Orebody		
FH425EC01C	511816	7818329	432	4.29	425	0	4.29	4.29	2.16	0.11	0	Faina-H lens (Middle)		
FH425EC02C	511819	7818330	431	6.4	425	0	6.4	6.40	6.40	13.31	85	Faina-H lens (Middle)		
FH425EC03C	511822	7818331	431	6.75	425	0	6.75	6.75	6.75	14.42	97	Faina-H lens (Middle)		
FH425EC03P	511822	7818331	430	6.17	425	0	6.17	6.17	6.17	17.31	107	Faina-H lens (Middle)		
FH425EC04C	511826	7818330	430	5.39	425	0	5.39	5.39	5.39	5.61	30	Faina-H lens (Middle)		
FH425EC04P	511825	7818330	429	6.07	425	0	6.07	6.07	6.07	9.42	57	Faina-H lens (Middle)		
FH425EC05C	511819	7818332	431	8.38	425	0	8.38	8.38	5.83	2.46	14	Faina-H lens (Middle)		
FH425EC05P	511819	7818333	430	8.63	425	0	8.63	8.63	6.07	3.60	22	Faina-H lens (Middle)		
FH425EC06C	511820	7818335	430	7.91	425	0	7.91	7.91	4.64	9.90	46	Faina-H lens (Middle)		
FH425EC06P	511821	7818336	429	5.63	425	0	5.63	5.63	4.33	11.46	50	Faina-H lens (Middle)		
FH425ELD01	511811	7818324	432	4.16	425	0	4.16	2.02	2.02	2.94	6	Faina-H lens (Middle)		
FH425ELD03	511822	7818326	430	3.09	425	0	3.09	3.09	3.09	8.16	25	Faina-H lens (Middle)		