

Industry Status: Metals & Mining

1 week 10/17/23 to 10/24/23								
9Weakest	8VWeak	7Weaker	6Weak	5Avg	4Strong	3Stronger	2VStrong	1Strongest
.	.	.	<-METALS 68	<-METALS 68	.	.	.	.
.	.	4 Aluminum	.	.	.	.	.	.
.	.	2 Copper	.	.	.	.	.	.
.	.	.	16 Gold	.	.	.	.	.
.	.	.	.	<-Indust Mt/Mn 22	<-Indust Mt/Mn 22	.	.	.
.	3 Nonmet Mining
.	.	10 Silver	.	.	.	.	.	.
.	.	<-Steel/Iron 11	<-Steel/Iron 11	<-Steel/Iron 11	.	.	.	.
.
.

October 24, 2023

DOWN -1 to **WEAK** strength rating
(**6th** strongest of 9 levels)
previous move was **UP**

Gold unchanged at Weak strength rating

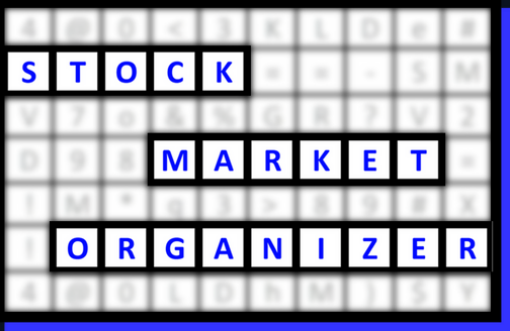


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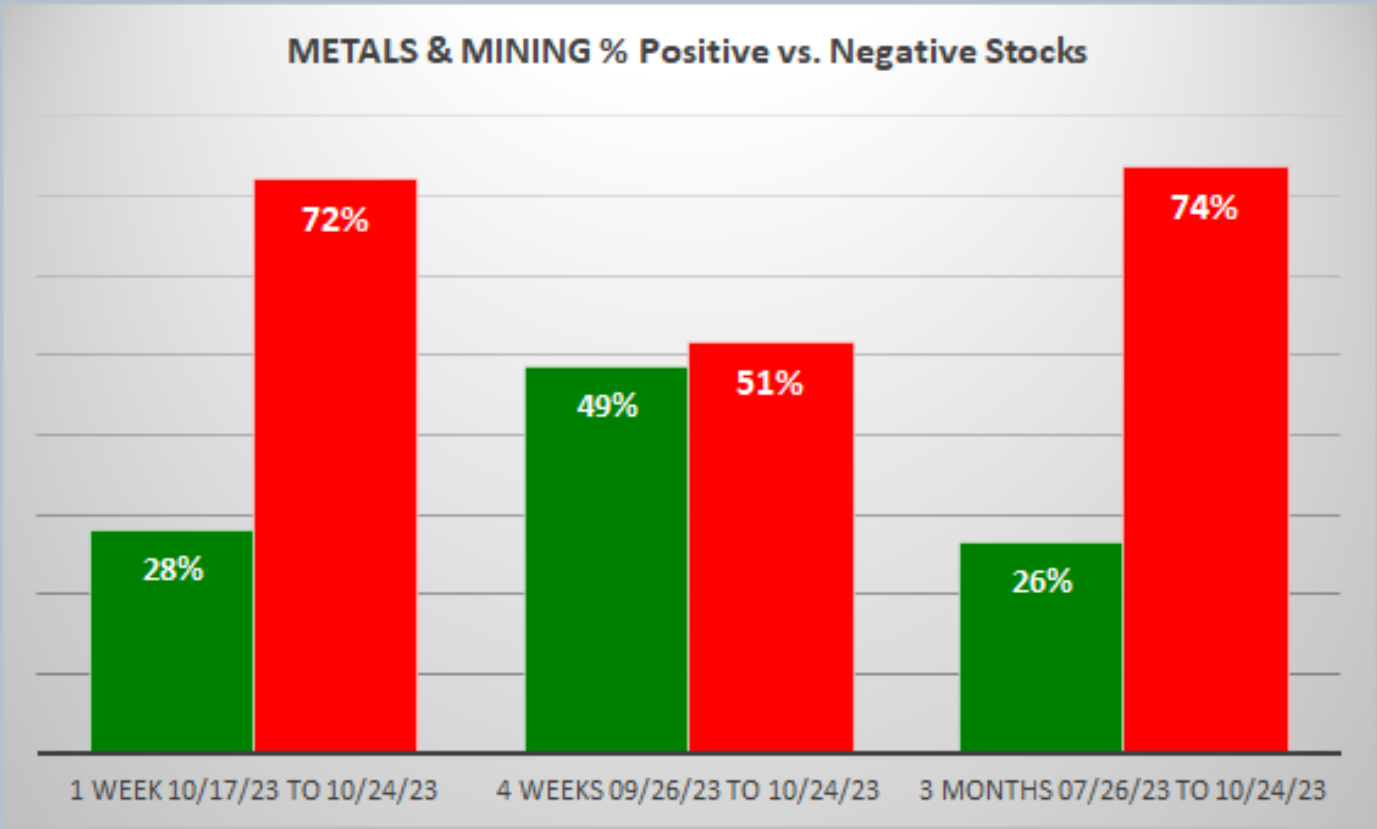
1. INDUSTRY OVERVIEW

1A. Performance

Past 10 Weeks Strengthening/Weakening week-by-week, per the following chart:

9Weakest	8VWeak	7Weaker	6Weak	5Avg	4Strong	3Stronger	2VStrong	1Strongest	Period
.	.	.	<-METALS 68	<-METALS 68	.	.	.	.	7 Days - 10/17/23 to 10/24/23
.	.	.	68 METALS->	68 METALS->	.	.	.	.	7 Days - 10/10/23 to 10/17/23
.	.	.	68 METALS	.	.	.	.	.	7 Days - 10/03/23 to 10/10/23
.	.	.	68 METALS	.	.	.	.	.	7 Days - 09/26/23 to 10/03/23
.	.	.	<-METALS 68	<-METALS 68	.	.	.	.	7 Days - 09/19/23 to 09/26/23
.	.	.	.	68 METALS	.	.	.	.	7 Days - 09/12/23 to 09/19/23
.	.	.	.	68 METALS	.	.	.	.	7 Days - 09/05/23 to 09/12/23
.	.	.	.	68 METALS	.	.	.	.	7 Days - 08/29/23 to 09/05/23
.	.	.	68 METALS->	68 METALS->	.	.	.	.	7 Days - 08/22/23 to 08/29/23
.	.	.	68 METALS	.	.	.	.	.	7 Days - 08/15/23 to 08/22/23

Mixed/WEAKENING 1 Week vs. Mid- and Longer-Term // 1 week positive/negative stocks ratio is LOWER than 4 weeks but HIGHER than 3 Months, per the following chart:



1B. Background

Largest of 7 sub-industries (68 stocks, average 10):

- * Industrial Metals & Minerals (22 stocks)
- * Gold (16 stocks)
- * Steel & Iron (11 stocks)
- * Silver (10 stocks)

Top 10 by Market Capitalization:

SCCO/Southern Copper Corp, FCX/Freeport-McMoran Inc, NUE/Nucor Corp, NEM/Newmont Corporation, GOLD/Barrick Gold Corp, FNV/Franco Nevada Corp, AEM/Agnico Eagle Mines Ltd, TECK/Teck Resources Limited, WPM/Wheaton Precious Metals Corp, STLD/Steel Dynamics Inc

2. SUB-INDUSTRIES AND STOCKS DETAIL

2A. Sub-Industries Overview

Strengthened: 0/7 sub-industries

Weakened: 2/7 sub-industries

STRONGEST at Strongest rating/1st strongest of 9 levels:

- * Nonmetallic Mineral Mining (3 stocks)

WEAKEST at Weaker rating/7th strongest of 9 levels:

- * Aluminum (4 stocks)
- * Copper (2 stocks)
- * Silver (10 stocks)
- * Steel & Iron (11 stocks)

2B. Sub-Industries 10-Week Strengthening Analysis

What: recent week-by-week strength changes for the industry and each underlying sub-industry

Why: objective measurement of strengthening and weakening enabling comparison within and across industries and sub-industries

INDUSTRY CURRENT PERIOD SUMMARY										1 week 10/17/23 to 10/24/23						
Length - Begin/End	Industry/Sub-Industry	Period	#	Min	Avg	Max	Status	9Weakest	8VWeak	7Weaker	6Weak	5Avg	4Strong	3Stronger	2VStrong	1Strongest
7 Days - 10/17/23 to 10/24/23	METALS & MINING	Period 1 of 10 (Current)	68	-26%	-4%	7%	Weakened				<<METALS 68	<<METALS 68				
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Aluminum	Period 1 of 10 (Current)	4	-16%	-10%	-4%	Unchanged			4 Aluminum						
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Copper	Period 1 of 10 (Current)	2	-6%	-5%	-3%	Unchanged			2 Copper						
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Gold	Period 1 of 10 (Current)	16	-5%	0%	4%	Weakened				16 Gold					
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Industrial Metals & Minerals	Period 1 of 10 (Current)	22	-26%	-6%	7%	Weakened					<<Indust Mt/Mn 22	<<Indust Mt/Mn 22			
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Nonmetallic Mineral Mining	Period 1 of 10 (Current)	3	-6%	-6%	-6%	Unchanged									3 Nonmet Min
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Silver	Period 1 of 10 (Current)	10	-7%	-1%	4%	Strengthened			10 Silver						
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Steel & Iron	Period 1 of 10 (Current)	11	-16%	-5%	1%	Weakened			<<Steel/Iron 11	<<Steel/Iron 11	<<Steel/Iron 11				
7 Days - 10/17/23 to 10/24/23	.	Period 1 of 10 (Current)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
7 Days - 10/17/23 to 10/24/23	.	Period 1 of 10 (Current)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PREVIOUS WEEKS (EDUCATIONAL PURPOSES ONLY/NOT A STOCK OR INVESTMENT RECOMMENDATION)																
Length - Begin/End	Industry/Sub-Industry	Period	#	Min	Avg	Max	Status	9Weakest	8VWeak	7Weaker	6Weak	5Avg	4Strong	3Stronger	2VStrong	1Strongest
7 Days - 10/17/23 to 10/24/23	METALS & MINING	Period 1 of 10 (Current)	68	-26%	-4%	7%	Weakened				<<METALS 68	<<METALS 68				
7 Days - 10/10/23 to 10/17/23	METALS & MINING	Period 2 of 10	68	-15%	2%	26%	Strengthened				68 METALS->	68 METALS->				
7 Days - 10/03/23 to 10/10/23	METALS & MINING	Period 3 of 10	68	-34%	3%	11%	Strengthened				68 METALS					
7 Days - 09/26/23 to 10/03/23	METALS & MINING	Period 4 of 10	68	-15%	-2%	7%	Unchanged				68 METALS					
7 Days - 09/19/23 to 09/26/23	METALS & MINING	Period 5 of 10	68	-11%	-3%	14%	Weakened				<<METALS 68	<<METALS 68				
7 Days - 09/12/23 to 09/19/23	METALS & MINING	Period 6 of 10	68	-13%	2%	20%	Unchanged					68 METALS				
7 Days - 09/05/23 to 09/12/23	METALS & MINING	Period 7 of 10	68	-16%	-1%	8%	Unchanged					68 METALS				
7 Days - 08/29/23 to 09/05/23	METALS & MINING	Period 8 of 10	68	-13%	-2%	10%	Weakened					68 METALS				
7 Days - 08/22/23 to 08/29/23	METALS & MINING	Period 9 of 10	68	-5%	4%	13%	Strengthened				68 METALS->	68 METALS->				
7 Days - 08/15/23 to 08/22/23	METALS & MINING	Period 10 of 10	68	-10%	1%	11%	Unchanged				68 METALS					
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Aluminum	Period 1 of 10 (Current)	4	-16%	-10%	-4%	Unchanged			4 Aluminum						
7 Days - 10/10/23 to 10/17/23	METALS & MINING - Aluminum	Period 2 of 10	4	-2%	-1%	0%	Unchanged			4 Aluminum						
7 Days - 10/03/23 to 10/10/23	METALS & MINING - Aluminum	Period 3 of 10	4	0%	1%	2%	Unchanged			4 Aluminum						
7 Days - 09/26/23 to 10/03/23	METALS & MINING - Aluminum	Period 4 of 10	4	-1%	3%	7%	Unchanged			4 Aluminum						
7 Days - 09/19/23 to 09/26/23	METALS & MINING - Aluminum	Period 5 of 10	4	-9%	-6%	-5%	Weakened			<<Aluminum 4	<<Aluminum 4					
7 Days - 09/12/23 to 09/19/23	METALS & MINING - Aluminum	Period 6 of 10	4	-6%	-1%	2%	Unchanged				4 Aluminum					
7 Days - 09/05/23 to 09/12/23	METALS & MINING - Aluminum	Period 7 of 10	4	-7%	-2%	1%	Strengthened				4 Aluminum					
7 Days - 08/29/23 to 09/05/23	METALS & MINING - Aluminum	Period 8 of 10	4	-1%	0%	2%	Unchanged				4 Aluminum					
7 Days - 08/22/23 to 08/29/23	METALS & MINING - Aluminum	Period 9 of 10	4	-5%	0%	3%	Unchanged				4 Aluminum					
7 Days - 08/15/23 to 08/22/23	METALS & MINING - Aluminum	Period 10 of 10	4	-5%	-1%	2%	Weakened				4 Aluminum					
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Copper	Period 1 of 10 (Current)	2	-6%	-5%	-3%	Unchanged			2 Copper						
7 Days - 10/10/23 to 10/17/23	METALS & MINING - Copper	Period 2 of 10	2	-2%	-2%	-2%	Weakened			<<Copper 2	<<Copper 2					
7 Days - 10/03/23 to 10/10/23	METALS & MINING - Copper	Period 3 of 10	2	2%	2%	3%	Strengthened			2 Copper->	2 Copper->					
7 Days - 09/26/23 to 10/03/23	METALS & MINING - Copper	Period 4 of 10	2	-1%	0%	1%	Unchanged			2 Copper						
7 Days - 09/19/23 to 09/26/23	METALS & MINING - Copper	Period 5 of 10	2	-7%	-7%	-6%	Weakened			<<Copper 2	<<Copper 2	<<Copper 2				
7 Days - 09/12/23 to 09/19/23	METALS & MINING - Copper	Period 6 of 10	2	-3%	-2%	-1%	Weakened				<<Copper 2	<<Copper 2	<<Copper 2	<<Copper 2	<<Copper 2	<<Copper 2
7 Days - 09/05/23 to 09/12/23	METALS & MINING - Copper	Period 7 of 10	2	-2%	-1%	0%	Weakened					<<Copper 2	<<Copper 2	<<Copper 2	<<Copper 2	<<Copper 2
7 Days - 08/29/23 to 09/05/23	METALS & MINING - Copper	Period 8 of 10	2	-2%	0%	2%	Strengthened								2 Copper->	2 Copper->
7 Days - 08/22/23 to 08/29/23	METALS & MINING - Copper	Period 9 of 10	2	2%	2%	3%	Strengthened								2 Copper->	2 Copper->
7 Days - 08/15/23 to 08/22/23	METALS & MINING - Copper	Period 10 of 10	2	-2%	-2%	-1%	Weakened							<<Copper 2	<<Copper 2	
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Gold	Period 1 of 10 (Current)	16	-5%	0%	4%	Weakened				16 Gold					
7 Days - 10/10/23 to 10/17/23	METALS & MINING - Gold	Period 2 of 10	16	0%	6%	10%	Strengthened			16 Gold->	16 Gold->					
7 Days - 10/03/23 to 10/10/23	METALS & MINING - Gold	Period 3 of 10	16	-5%	5%	9%	Strengthened		16 Gold->	16 Gold->						
7 Days - 09/26/23 to 10/03/23	METALS & MINING - Gold	Period 4 of 10	16	-15%	-5%	1%	Weakened	<<Gold 16		<<Gold 16						
7 Days - 09/19/23 to 09/26/23	METALS & MINING - Gold	Period 5 of 10	16	-10%	-5%	1%	Weakened			<<Gold 16	<<Gold 16					
7 Days - 09/12/23 to 09/19/23	METALS & MINING - Gold	Period 6 of 10	16	-13%	1%	6%	Strengthened			16 Gold->	16 Gold->					
7 Days - 09/05/23 to 09/12/23	METALS & MINING - Gold	Period 7 of 10	16	-16%	0%	3%	Unchanged			16 Gold						
7 Days - 08/29/23 to 09/05/23	METALS & MINING - Gold	Period 8 of 10	16	-9%	-5%	1%	Weakened			<<Gold 16	<<Gold 16					
7 Days - 08/22/23 to 08/29/23	METALS & MINING - Gold	Period 9 of 10	16	2%	6%	13%	Strengthened				16 Gold->	16 Gold->				
7 Days - 08/15/23 to 08/22/23	METALS & MINING - Gold	Period 10 of 10	16	-3%	0%	2%	Strengthened				16 Gold					
7 Days - 10/17/23 to 10/24/23	METALS & MINING - Industrial Metals & Minerals	Period 1 of 10 (Current)	22	-26%	-6%	7%	Weakened					<<Indust Mt/Mn 22	<<Indust Mt/Mn 22			
7 Days - 10/10/23 to 10/17/23	METALS & MINING - Industrial Metals & Minerals	Period 2 of 10	22	-15%	0%	26%	Unchanged						22 Indust Mt/Mn			
7 Days - 10/03/23 to 10/10/23	METALS & MINING - Industrial Metals & Minerals	Period 3 of 10	22	-34%	1%	7%	Strengthened						22 Indust Mt/Mn->	22 Indust Mt/Mn->		
7 Days - 09/26/23 to 10/03/23	METALS & MINING - Industrial Metals & Minerals	Period 4 of 10	22	-12%	-3%	6%	Unchanged						22 Indust Mt/Mn			
7 Days - 09/19/23 to 09/26/23	METALS & MINING - Industrial Metals & Minerals	Period 5 of 10	22	-11%	-1%	14%	Weakened					<<Indust Mt/Mn 22	<<Indust Mt/Mn 22			
7 Days - 09/12/23 to 09/19/23	METALS & MINING - Industrial Metals & Minerals	Period 6 of 10	22	-5%	4%	20%	Strengthened					22 Indust Mt/Mn->	22 Indust Mt/Mn->			
7 Days - 09/05/23 to 09/12/23	METALS & MINING - Industrial Metals & Minerals	Period 7 of 10	22	-7%	0%	8%	Weakened					<<Indust Mt/Mn 22	<<Indust Mt/Mn 22			
7 Days - 08/29/23 to 09/05/23	METALS & MINING - Industrial Metals & Minerals	Period 8 of 10	22	-13%	2%	10%	Unchanged					22 Indust Mt/Mn				
7 Days - 08/22/23 to 08/29/23	METALS & MINING - Industrial Metals & Minerals	Period 9 of 10	22	-3%	2%	13%	Strengthened					22 Indust Mt/Mn->	22 Indust Mt/Mn->			
7 Days - 08/15/23 to 08/22/23	METALS & MINING - Industrial Metals & Minerals	Period 10 of 10	22	-7%	3%	10%	Strengthened					22 Indust Mt/Mn				
7 Days - 10/17/2																

2C. Stocks 1 Week Strongest and Weakest

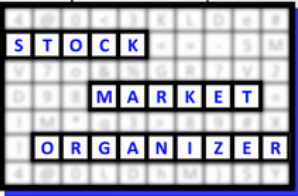
What: stocks currently rated Strongest/Weakest (highest/lowest of 9 strength ratings)

Why: most interesting stocks for available capital because

- the Strongest have the least amount of overhead supply to dampen breakouts while
- the Weakest may be prone to volatility, subject to big pops from bottom-fishing and short-covering BUT ALSO to bigger and faster falls.

(Not guaranteed and not a recommendation – weak stocks in weakening sub-industries may be better shorts than high-flyers.)

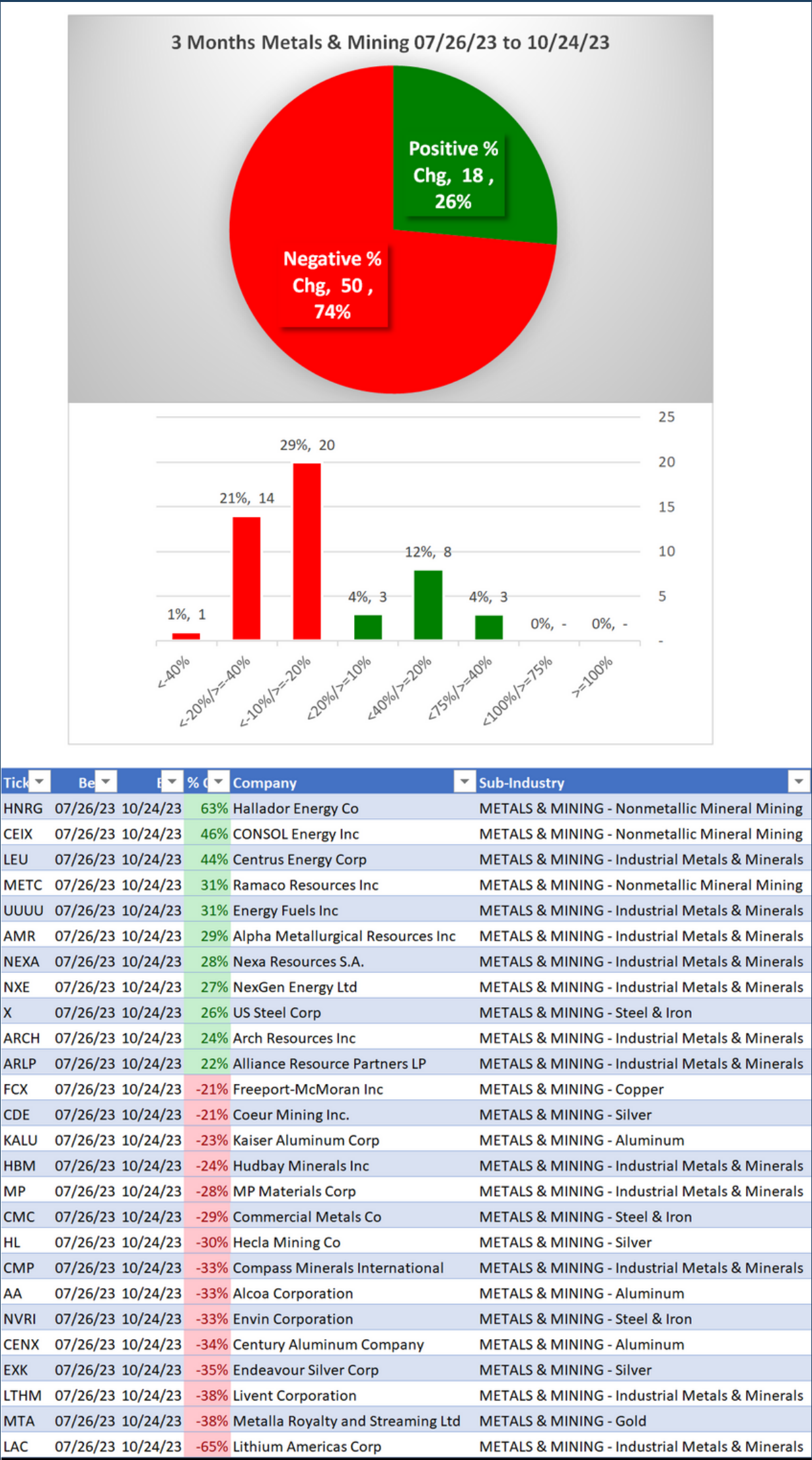
STOCK DETAIL (EDUCATIONAL PURPOSES ONLY/NOT FINANCIAL ADVICE)									1 week 10/17/23 to 10/24/23								
Sub-Industry	Ticker	Company	ID1	ID2	% Chg	ID3	Status		9Weakest	8VWeak	7Weaker	6Weak	5Avg	4Strong	3Stronger	2VStrong	1Strongest
METALS & MINING - Aluminum	KALU	Kaiser Aluminum Corp	95-75-69	15%	-8%	-13%	9Weakest		KALU	.	.	.	.	.	.	.	.
METALS & MINING - Aluminum	CENX	Century Aluminum Company	95-75-69	11%	-11%	-31%	9Weakest		CENX	.	.	.	.	.	.	.	.
METALS & MINING - Aluminum	AA	Alcoa Corporation	95-75-69	20%	-16%	-37%	9Weakest		AA	.	.	.	.	.	.	.	.
METALS & MINING - Copper	FCX	Freeport-McMoran Inc	95-75-69	62%	-6%	-13%	9Weakest		FCX	.	.	.	.	.	.	.	.
METALS & MINING - Gold	AGI	Alamos Gold Inc	15-69-69	91%	3%	9%	1Strongest		.	.	.	.	.	.	.	.	AGI
METALS & MINING - Gold	KGC	Kinross Gold Corp	15-69-69	34%	2%	14%	1Strongest		.	.	.	.	.	.	.	.	KGC
METALS & MINING - Gold	OR	Osisko Gold Royalties Ltd	99-69-69	60%	3%	-12%	9Weakest		<---OR	<---OR	<---OR	.	.	.	.	.	.
METALS & MINING - Gold	MTA	Metalla Royalty and Streaming Ltd	95-69-69	5%	1%	-35%	9Weakest		MTA	.	.	.	.	.	.	.	.
METALS & MINING - Gold	RGLD	Royal Gold Inc	99-69-69	51%	-3%	-10%	9Weakest		<---RGLD	<---RGLD	<---RGLD	.	.	.	.	.	.
METALS & MINING - Gold	NG	Novagold Resources Inc	95-69-69	3%	-3%	-27%	9Weakest		NG	.	.	.	.	.	.	.	.
METALS & MINING - Gold	SAND	Sandstorm Gold Limited	95-69-69	13%	-3%	-11%	9Weakest		SAND	.	.	.	.	.	.	.	.
METALS & MINING - Gold	NEM	Newmont Corporation	99-69-69	15%	-5%	-13%	9Weakest		<---NEM	<---NEM	<---NEM	.	.	.	.	.	.
METALS & MINING - Industrial Metals & Minerals	UUUU	Energy Fuels Inc	15-59-69	70%	7%	22%	1Strongest		.	.	.	.	.	.	.	.	UUUU
METALS & MINING - Industrial Metals & Minerals	NXE	NexGen Energy Ltd	15-59-69	91%	5%	28%	1Strongest		.	.	.	.	.	.	.	.	NXE
METALS & MINING - Industrial Metals & Minerals	CCJ	Cameco Corp	15-59-69	93%	3%	26%	1Strongest		.	.	.	.	.	.	.	.	CCJ
METALS & MINING - Industrial Metals & Minerals	LEU	Centrus Energy Corp	15-59-69	61%	-2%	35%	1Strongest		.	.	.	.	.	.	.	.	LEU
METALS & MINING - Industrial Metals & Minerals	ARLP	Alliance Resource Partners LP	15-59-69	87%	-3%	16%	1Strongest		.	.	.	.	.	.	.	.	ARLP
METALS & MINING - Industrial Metals & Minerals	HCC	Warrior Met Coal	15-59-69	90%	-5%	20%	1Strongest		.	.	.	.	.	.	.	.	HCC
METALS & MINING - Industrial Metals & Minerals	ARCH	Arch Resources Inc	15-59-69	81%	-6%	11%	1Strongest		.	.	.	.	.	.	.	.	ARCH
METALS & MINING - Industrial Metals & Minerals	MP	MP Materials Corp	95-59-69	30%	-8%	-29%	9Weakest		MP	.	.	.	.	.	.	.	.
METALS & MINING - Industrial Metals & Minerals	HBM	Hudbay Minerals Inc	95-59-69	37%	-9%	-14%	9Weakest		HBM	.	.	.	.	.	.	.	.
METALS & MINING - Industrial Metals & Minerals	CMP	Compass Minerals International	95-59-69	0%	-12%	-27%	9Weakest		CMP	.	.	.	.	.	.	.	.
METALS & MINING - Industrial Metals & Minerals	TECK	Teck Resources Limited	99-59-69	69%	-14%	-15%	9Weakest		<---TECK	<---TECK	<---TECK	<---TECK	<---TECK	.	.	.	.
METALS & MINING - Industrial Metals & Minerals	LTHM	Livent Corporation	95-59-69	38%	-14%	-30%	9Weakest		LTHM	.	.	.	.	.	.	.	.
METALS & MINING - Industrial Metals & Minerals	LAC	Lithium Americas Corp	95-59-69	12%	-26%	-66%	9Weakest		LAC	.	.	.	.	.	.	.	.
METALS & MINING - Nonmetallic Mineral Mining	METC	Ramaco Resources Inc	11-15-69	53%	-6%	30%	1Strongest		.	.	.	.	.	.	.	.	METC-->
METALS & MINING - Nonmetallic Mineral Mining	CEIX	CONSOL Energy Inc	15-15-69	94%	-6%	49%	1Strongest		.	.	.	.	.	.	.	.	CEIX
METALS & MINING - Nonmetallic Mineral Mining	HNRG	Hallador Energy Co	15-15-69	93%	-6%	52%	1Strongest		.	.	.	.	.	.	.	.	HNRG
METALS & MINING - Silver	PAAS	Pan Amer Silver Cp	95-71-69	17%	1%	-6%	9Weakest		PAAS	.	.	.	.	.	.	.	.
METALS & MINING - Silver	AG	First Majestic Silver Corp	99-71-69	4%	-3%	-14%	9Weakest		<---AG	<---AG	<---AG	.	.	.	.	.	.
METALS & MINING - Silver	EXK	Endeavour Silver Corp	95-71-69	20%	-7%	-26%	9Weakest		EXK	.	.	.	.	.	.	.	.
METALS & MINING - Steel & Iron	X	US Steel Corp	15-79-69	82%	-2%	21%	1Strongest		.	.	.	.	.	.	.	.	X
METALS & MINING - Steel & Iron	ACNT	Ascent Industries Co.	95-79-69	26%	1%	-15%	9Weakest		ACNT	.	.	.	.	.	.	.	.
METALS & MINING - Steel & Iron	STLD	Steel Dynamics Inc	99-79-69	71%	-5%	-5%	9Weakest		<---STLD	<---STLD	<---STLD	<---STLD	<---STLD	<---STLD	<---STLD	.	.
METALS & MINING - Steel & Iron	CMC	Commercial Metals Co	99-79-69	62%	-6%	-20%	9Weakest		<---CMC	<---CMC	.	.	.	.	.	.	.
METALS & MINING - Steel & Iron	NWPX	Northwest Pipe Co	95-79-69	38%	-6%	-14%	9Weakest		NWPX	.	.	.	.	.	.	.	.
METALS & MINING - Steel & Iron	NVRI	Envin Corporation	99-79-69	10%	-10%	-22%	9Weakest		<---NVRI	<---NVRI	<---NVRI	.	.	.	.	.	.



Strongest to Weakest stocks ratio is 13:24 (19% and 35% of total) 10/17/23 to 10/24/23.

3. STRENGTH BY LOOKBACK PERIOD (with Best/Worst stocks)

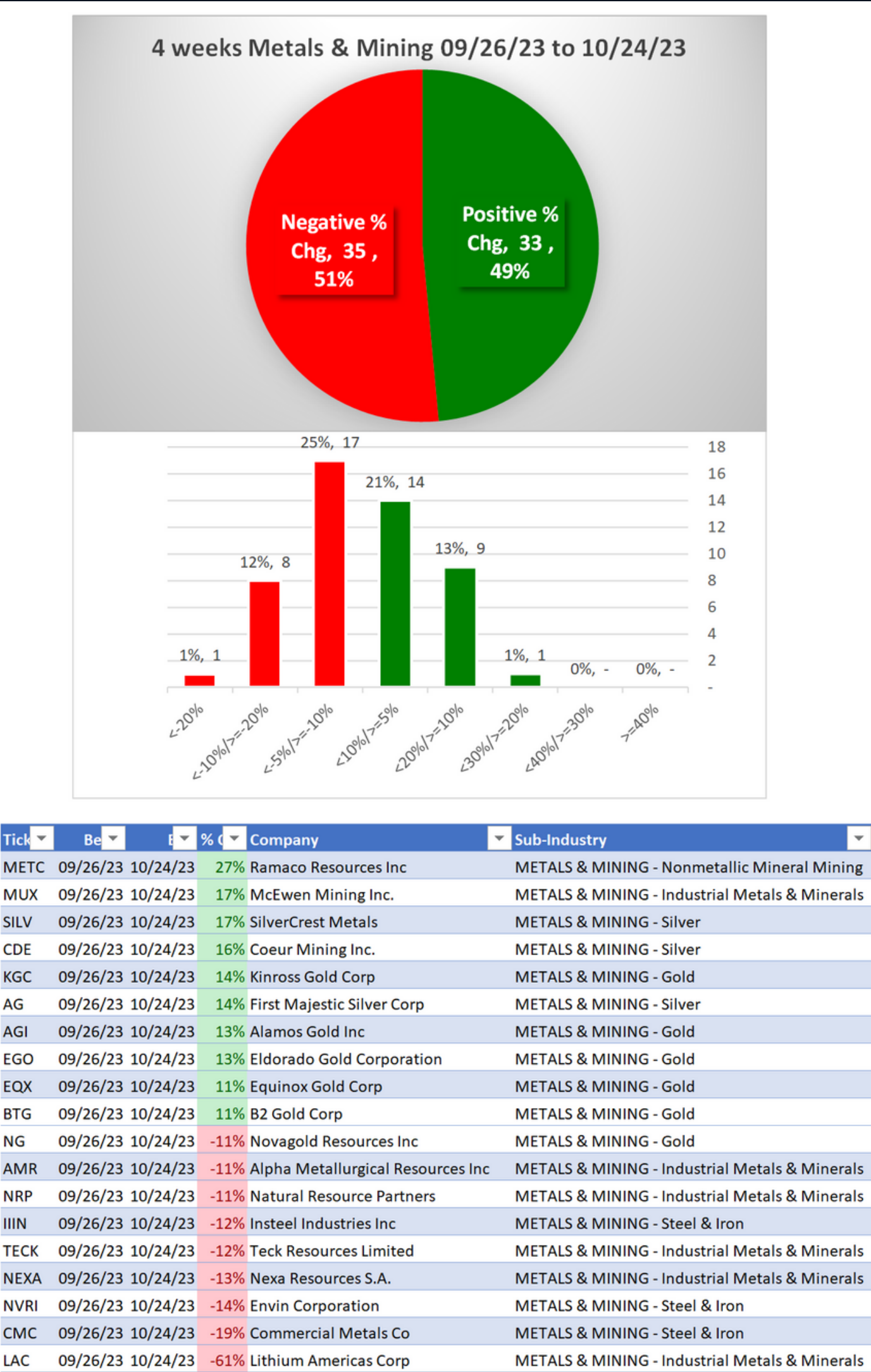
3A. Lookback 3 Months



11 stocks >+20% and 15 stocks <-20% (16% and 22% of total) 07/26/23 to 10/24/23.

3. STRENGTH BY LOOKBACK PERIOD (with Best/Worst stocks)

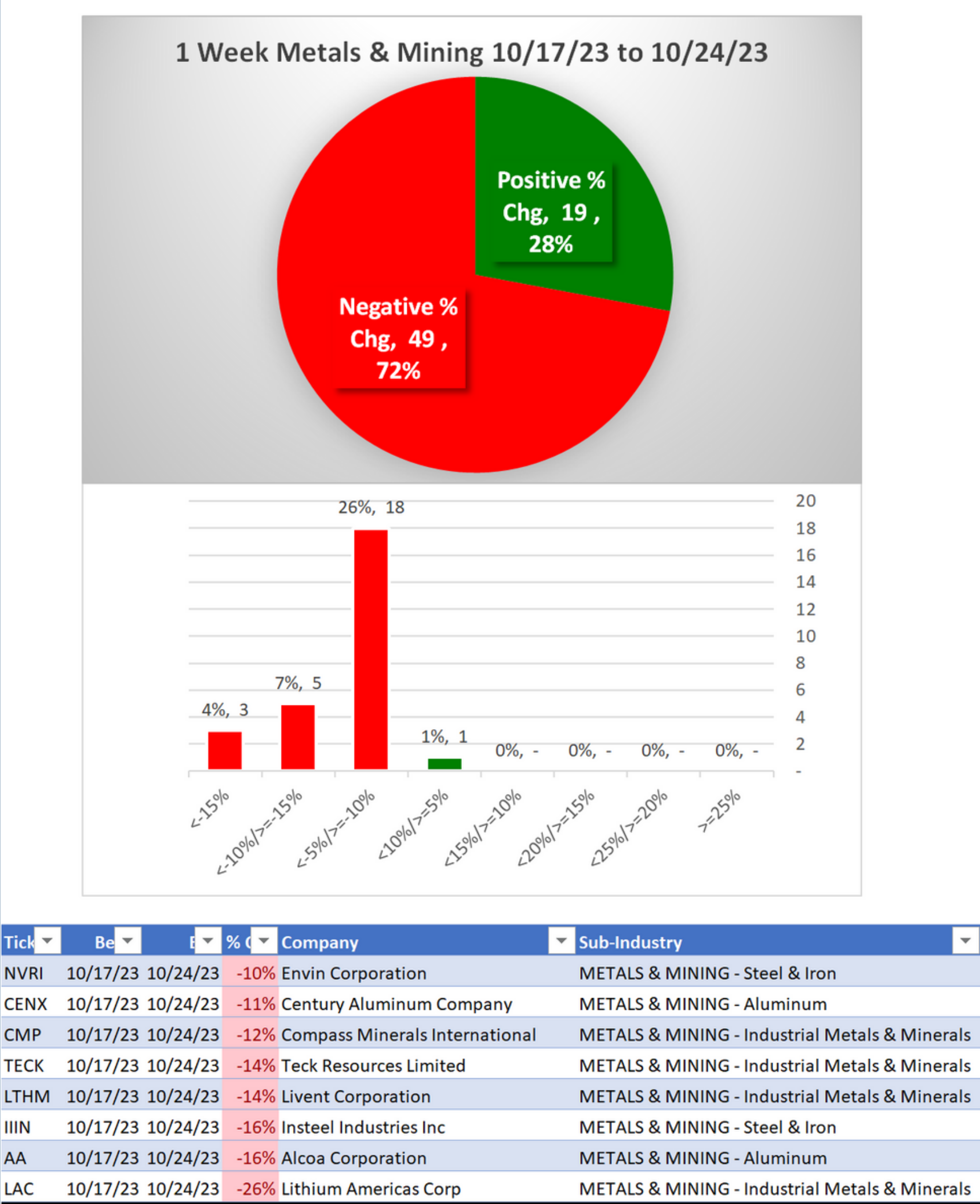
3B. Lookback 4 Weeks



10 stocks > +10% and 9 stocks < -10% (15% and 13% of total) 09/26/23 to 10/24/23.

3. STRENGTH BY LOOKBACK PERIOD (with Best/Worst stocks)

3C. Lookback 1 Week



0 stocks >+10% and 8 stocks <-10% (0% and 12% of total) 10/17/23 to 10/24/23.