Ethereum Mining Profitability & Scenario Analysis (Nvidia)

Prepared on: June 26, 2021 *All dollar amounts in CAD

	Electricity Cost (¢/kWh) Network Hashrate (TH/s)						2312 13413		6.49431								
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
	Revenue/Day	1.95	2.07	2.34	2.99	1.95	2.08	2.74	2.86	2.79	2.79	2.74	3.84	3.93	3.93	6.23	7.79
	Hashrate (MH/s)	30.0	31.9	36.0	46.0	30.0	32.0	42.3	44.0	43.0	43.0	42.2	59.2	60.5	60.6	96.0	120.0
nt	Power Usage (W)	120	135	135	240	90	90	110	120	125	108	140	230	120	120	220	285
<u>re</u>	El. Costs (\$ /Day)	0.30	0.33	0.33	0.59	0.22	0.22	0.27	0.30	0.31	0.27	0.35	0.57	0.30	0.30	0.55	0.71
ur	Gross Profit/Day ¹	1.65	1.74	2.00	2.39	1.73	1.86	2.47	2.56	2.48	2.52	2.39	3.27	3.63	3.64	5.69	7.09
13	Market Price ²	600	650	700	950	500	800	950	1000	1000	1000	1000	1200	1200	1300	1850	2777
	Efficiency (kH/s/W)	250	236	267	192	333	356	384	367	344	398	301	257	504	505	436	421
	ROI Time (Days)	363	374	349	397	290	431	384	391	403	396	418	366	330	358	325	392
	Annual Returns ³	100%	98%	104%	92%	126%	85%	95%	93%	91%	92%	87%	100%	110%	102%	112%	93%

Gross profits take into account only cost of electricity. Taxes, withdrawal fees, transaction fees and depreciation has not been considered.

Sourced from historic Ebay sold listings in Canada on May 1, 2021. These are approximate prices and subject to volatility in demand and supply.

³ Return on investment into a graphics card to be used for mining 100% of the time for a period of 365 days.

	Discount	3%															
	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
	Revenue/Day (CAD)*	1.90	2.02	2.28	2.91	1.90	2.02	2.67	2.78	2.72	2.72	2.67	3.74	3.83	3.83	6.07	7.59
	Gross Profit/Day (CAD)	1.60	1.68	1.94	2.31	1.67	1.80	2.40	2.49	2.41	2.45	2.32	3.17	3.53	3.53	5.53	6.88
59	ROI Time (days)	375	386	360	411	299	444	396	402	415	408	431	378	340	368	335	403
55	Annual Returns	97%	94%	101%	89%	122%	82%	92%	91%	88%	89%	85%	97%	107%	99%	109%	90%

VERY LIKELY

* This scenario takes into account the effects of the EIP-1559 resolution. The current average block reward on May 1, 2021 is 2.5 eth (from etherscan) and the profitability numbers above reflect this amount. After the EIP-1559 resolution is implemented (expected in sometime July 2021), this block reward will be lowered to the standard 2 ether per block (plus rush fees). This will lower our profits from mining from its current number to 2/2.5 of what it is now, or 80% of what it is now (a decrease of 20%). Note that due to miners potentially exiting the network from the reduced fees, we may see a reduced network difficulty, so this is a conservative estimate of the results. Furthermore, the block reward will not only be the 2 ether per block, but will also include priority transaction fees. So the amount of discount in this scenario represents a worst-case scenario for a reduced block reward. This scenario discounts the revenue from mining by 35% to simulate the effects of EIP-1559.

	Discount	94%															
_	Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
당	Revenue/Day (CAD)*	0.12	0.12	0.14	0.18	0.12	0.12	0.16	0.17	0.16	0.16	0.16	0.23	0.23	0.23	0.37	0.46
Ö	Gross Profit/Day (CAD)	-0.18	-0.21	-0.20	-0.42	-0.11	-0.10	-0.11	-0.13	-0.14	-0.10	-0.19	-0.34	-0.07	-0.07	-0.18	-0.25
ΙŌ	ROI Time (days)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ب	Annual Returns	-11%	-12%	-10%	-16%	-8%	-5%	-4%	-5%	-5%	-4%	-7%	-10%	-2%	-2%	-3%	-3%

VERY UNLIKELY

* This scenario will consider then impacts of an immediate market crash similar to the one following the 2017-2018 speculative bubble into cryptocurrencies. In 2018, the price of Ethereum fell from a high of \$1405 on Jan 9 to 83 USD at the lowest point on Dec 15 (from Coindesk). This reflects a 94% reduction in price and hence mining profits. This scenario discounts revenue by 94% to simulate a market crash. Note that in this scenario, in contrast to the above scenario, the loss of mining revenue is due to a discounted price of Ethereum whereas in the above scenario, revenue decreased from a reduction in ETH paid as a block reward for mining.

Discount	65%															
Card	1070	1070 Ti	1080	1080 Ti	1660s	2060	2060s	2070	2070s	2080	2080s	2080 Ti	3060 Ti	3070	3080	3090
Revenue/Day (CAD)*	0.67	0.72	0.81	1.03	0.67	0.72	0.95	0.99	0.96	0.96	0.95	1.33	1.36	1.36	2.15	2.69
Gross Profit/Day (CAD)	0.38	0.38	0.47	0.44	0.45	0.49	0.67	0.69	0.65	0.70	0.60	0.76	1.06	1.06	1.61	1.98
ROI Time (days)	1599	1708	1481	2176	1112	1618	1408	1451	1529	1436	1669	1585	1133	1226	1151	1400
Annual Returns	23%	21%	25%	17%	33%	23%	26%	25%	24%	25%	22%	23%	32%	30%	32%	26%
	Card Revenue/Day (CAD)* Gross Profit/Day (CAD) ROI Time (days)	Card 1070 Revenue/Day (CAD)* 0.67 Gross Profit/Day (CAD) 0.38 ROI Time (days) 1599	Card 1070 1070 Ti Revenue/Day (CAD)* 0.67 0.72 Gross Profit/Day (CAD) 0.38 0.38 ROI Time (days) 1599 1708	Card 1070 1070 Ti 1080 Revenue/Day (CAD)* 0.67 0.72 0.81 Gross Profit/Day (CAD) 0.38 0.38 0.47 ROI Time (days) 1599 1708 1481	Card 1070 1070 Ti 1080 1080 Ti Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 ROI Time (days) 1599 1708 1481 2176	Card 1070 1070 Ti 1080 1080 Ti 1660s Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 ROI Time (days) 1599 1708 1481 2176 1112	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 ROI Time (days) 1599 1708 1481 2176 1112 1618	Card 1070 1070 ri 1080 1080 ri 1660s 2060 2060s Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 0.99 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 0.69 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408 1451	Card 1070 1070 ri 1080 1080 ri 1660s 2060 2060s 2070 2070s Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 0.99 0.96 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 0.69 0.65 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408 1451 1529	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s 2080 Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 0.99 0.96 0.96 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 0.69 0.65 0.70 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408 1451 1529 1436	Card 1070 1070 ri 1080 1080 ri 1660s 2060 2060s 2070 2070s 2080 2080s Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 0.96 0.96 0.95 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 0.69 0.65 0.70 0.60 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408 1451 1529 1436 1669	Card 1070 1070 Ti 1080 1080 Ti 1660s 2060 2060s 2070 2070s 2080 2080s 2080 Ti Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 0.99 0.96 0.96 0.95 1.33 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 0.69 0.65 0.70 0.60 0.76 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408 1451 1529 1436 1669 1585	Card 1070 1070 ri 1080 1080 ri 1660s 2060 2060s 2070 2070s 2080 2080s 2080 ri 3060 ri Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 0.99 0.96 0.96 0.95 1.33 1.36 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 0.69 0.65 0.70 0.60 0.76 1.06 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408 1451 1529 1436 1669 1585 1133	Card 1070 1070 I 1080 I 1080 I 1660s I 2060 I 2060s I 2070 I 2070s I 2080 I 2080 I 2080 II 3060 II 3070 II Revenue/Day (CAD)* 0.67 I 0.72 I 0.81 I 1.03 I 0.67 I 0.72 II 0.95 II 0.99 II 0.96 II 0.95 II 1.36 II 1.36 II 1.36 II 1.36 II 1.36 II 1.06 II 1.06 II 0.69 II 0.69 II 0.69 II 0.69 II 1.06 II <th>Card 1070 1070 rt 1080 1080 rt 1660s 2060s 2060s 2070s 2070s 2080 rt 2080 rt 3060 rt 3070 rt 3080 rt Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 0.95 0.96 0.95 1.33 1.36 1.36 2.15 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 0.69 0.65 0.70 0.60 0.76 1.06 1.06 1.61 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408 1451 1529 1436 1669 1585 1133 1226 1151</th>	Card 1070 1070 rt 1080 1080 rt 1660s 2060s 2060s 2070s 2070s 2080 rt 2080 rt 3060 rt 3070 rt 3080 rt Revenue/Day (CAD)* 0.67 0.72 0.81 1.03 0.67 0.72 0.95 0.95 0.96 0.95 1.33 1.36 1.36 2.15 Gross Profit/Day (CAD) 0.38 0.38 0.47 0.44 0.45 0.49 0.67 0.69 0.65 0.70 0.60 0.76 1.06 1.06 1.61 ROI Time (days) 1599 1708 1481 2176 1112 1618 1408 1451 1529 1436 1669 1585 1133 1226 1151

LIKELY

* This scenario recognizes that the price depreciation from a market correction will not be instantaneous and will take time similar to the previous crash. This scenario will consider the impacts that a market pullback of similar proportion to the one observed in 2018. In that market pullback from Jan 9 to Dec 15 2018, the average daily closing price of Ethereum was \$485 compared to the peak of \$1405 USD. In this scenario, we will consider a revenue reduction in Ethereum by 65% to simulate the actual average daily profitability in the case of a similar market decline.

Ethereum Mining Profitability & Scenario Analysis (AMD)

Prepared on: *All dollar amounts in CAD

	Electricity Cost (¢/kWh)				ETH	Price	2312		Block 1	Time (s)	13.23		c/MF	I/Day	6.49431		
	Network Hashrate (Th	H/s)	477.50		Eth Min	ed/Day	13413		Block F	Reward	2.054		4 / 1411	., Du y	0.43431		
	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
يد	Revenue/Day	1.97	1.97	1.98	2.03	2.00	1.69	2.40	3.47	3.55	3.05	4.12	4.18	4.16	2.51	3.05	5.88
등	Hashrate (MH/s)	30.4	30.4	30.5	31.3	30.8	26.0	37.0	53.5	54.7	47.0	63.4	64.4	64.0	38.6	47.0	90.5
ן צַ ן	Power Usage (W)	120	130	130	130	130	70	100	160	140	170	175	190	220	215	220	220
Current	El. Costs (\$ /Day)	0.30	0.32	0.32	0.32	0.32	0.17	0.25	0.40	0.35	0.42	0.43	0.47	0.55	0.53	0.55	0.55
S	Gross Profit/Day ¹	1.68	1.65	1.66	1.71	1.68	1.52	2.16	3.08	3.21	2.63	3.68	3.71	3.61	1.97	2.51	5.33
	Market Price ²	500	500	500	500	500	500	650	900	950	1000	1300	1700	2200	700	850	2100
	Efficiency (kH/s/W)	253	234	235	241	237	371	370	334	391	276	362	339	291	180	214	411
	ROI Time (Days)	298	303	301	292	298	330	302	292	296	380	353	458	609	355	339	394
	Annual Returns ³	122%	121%	121%	125%	123%	111%	121%	125%	123%	96%	103%	80%	60%	103%	108%	93%
			•	•		•				•		•	•		•	•	
6	Discount	3%															
2	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
15	Revenue/Day (CAD)*	1.92	1.92	1.93	1.98	1.95	1.64	2.34	3.38	3.46	2.97	4.01	4.07	4.05	2.44	2.97	5.72
	Gross Profit/Day (CAD)	1.63	1.60	1.61	1.66	1.63	1.47	2.09	2.99	3.11	2.55	3.58	3.60	3.50	1.91	2.43	5.18
EP	ROI Time (days)	308	312	311	302	308	340	311	301	305	392	364	472	628	367	350	406
E	Annual Returns	119%	117%	117%	121%	119%	107%	117%	121%	120%	93%	100%	77%	58%	100%	104%	90%
			_														
	Discount	94%															
ے	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
Crash	Revenue/Day (CAD)*	0.12	0.12	0.12	0.12	0.12	0.10	0.14	0.21	0.21	0.18	0.24	0.25	0.25	0.15	0.18	0.35
1 12	Gross Profit/Day (CAD)	-0.18	-0.21	-0.21	-0.20	-0.20	-0.07	-0.11	-0.19	-0.14	-0.24	-0.19	-0.22	-0.30	-0.38	-0.36	-0.20
	ROI Time (days)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Annual Returns	-13%	-15%	-15%	-15%	-15%	-5%	-6%	-8%	-5%	-9%	-5%	-5%	-5%	-20%	-16%	-3%
			-														
	Discount	65%															
딧	Card	470	480	570	580	590	5500XT	5600XT	5700	5700XT	6700XT	6800	6800XT	6900XT	Vega56	Vega64	VII
Ţ.	Revenue/Day (CAD)*	0.68	0.68	0.68	0.70	0.69	0.58	0.83	1.20	1.23	1.05	1.42	1.44	1.43	0.87	1.05	2.03
Correct	Gross Profit/Day (CAD)	0.38	0.36	0.36	0.38	0.37	0.41	0.58	0.80	0.88	0.63	0.99	0.97	0.89	0.33	0.51	1.48
	ROI Time (days)	1302	1391	1383	1317	1357	1221	1117	1121	1080	1581	1316	1747	2473	2105	1672	1415
0	Annual Returns	28%	26%	26%	28%	27%	30%	33%	33%	34%	23%	28%	21%	15%	17%	22%	26%