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Network-1 Technologies, Inc: NTIP

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Sector: Information Technology

Industry: Technology Hardware & Equipment

Company Description: Network-1 Technologies, Inc engages in the development and licensing intellectual property. It supports customers such as investors and patent owners by assisting the development and monetization of their patented technologies which include telecommunications and data networking technologies as well as technologies relating to document stream operating systems and the identification of media content.

BUY

Current Price: \$4.65
 Target Price: \$6.41
 Market Cap: \$106M
 Beta: .98



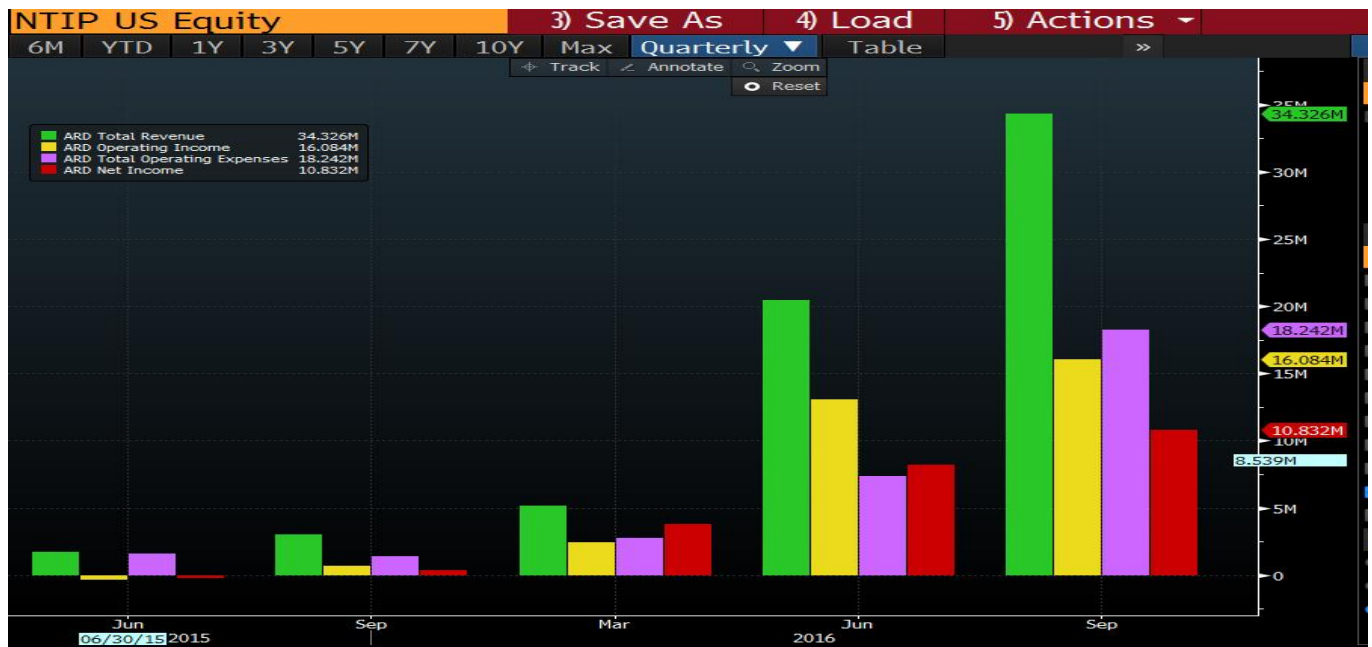
Thesis: Network-1 Technologies is a strong microcap company who has no debt, strong balance sheet, consistent quarterly revenues for the past six years. Currently the company owns 28 patents which includes four main assets with high revenue potential such as Remote Power Patent, Mirror Worlds Patent, Cox patent and QoS patent. Major tech companies such as Apple, Google, Cisco and Microsoft to name a few have reached licensing agreements for NTIP patents. The company has a history of being in court for validation on their patents in which the courts have continued to rule on their side, thus proving there is value to be found from these patents that are wanted by tech industry giants as stated before. To be exact NTIP has initiated patent litigation for infringement for its Remote Power Patent with 16 data networking equipment manufacturers such as Dell, Hewlett Packard Company, Huawei Technologies, Motorola Solutions, Samsung Electronics and Sony electronics just to name a few but as recently reached a settlement agreement with Apple and Microsoft for their Mirror Worlds Patent. As of today, 12 out of the 16 companies have reached settlement and licensing agreements for NTIP Remote Power Patent.

Catalysts:

- **Pending litigation with 4 defendants on Remote Power Patent that are scheduled for trial later in March. Investors should expect future revenue generating settlements toward end of 2017.**
- **Markman Ruling against the remaining 4 defendants for the Remote Power Patent.**
- **Firms still owe ongoing royalty payments of around 12m-15m annually for the Remote Power Patent until the expiration of the patent in March 2020.**
- **Pending litigation trial for Cox Patent portfolio still in proceeding status but as of October 2016 the PTAB has ruled in favor of NTIP against defendants Google and YouTube.**

Earnings Performance:

The most recent report regarding NTIP evaluates the three months ended September 30th, 2016. The third quarter has been quite successful for NTIP it recorded record revenues of \$34,326,000 for the three months ended September 30, 2016 as compared with revenue of \$3,008,000 for the three months ended September 30, 2015. The tremendous increase of revenues of \$31,318,000 for the three months ended September 30, 2016, was due primarily to additional licensing revenue of \$32,900,000 from litigation settlements with Apple Inc. of \$25,000,000, Dell, Inc. \$6,000,000 and Alcatel and ALE USA Inc. \$1,900,000. The revenue from royalty bearing licenses for patents has decrease \$232,000 or 14% from \$1,658,000 to \$1,426,000 for the three months ended September 30, 2016 compared to the three months ended September 30, 2015. Operating expenses have increased considerably for the three months ended September 30th, 2016 were \$18,242,000 as compared to \$2,324,000 for the three months ended September 30, 2015. The increase in operating expenses of \$15,918,000 was primarily due to increased costs of revenue related to our litigation settlements of an aggregate of \$32,900,000 for the three month period ended September 30, 2016. Operating income was \$16,084,000 for the three months ended September 30, 2016 compared with an operating income of \$684,000 for the three months ended September 30, 2015. This also includes contingent legal fees and expenses of \$13,273,000, other contractual payments of \$1,641,000 and \$2,029,000 of incentive bonus compensation payable to our Chairman and Chief Executive Officer. The increased operating income of \$15,400,000 for the three months ended September 30, 2016 was primarily due to licensing revenue of \$32,900,000 received from litigation settlements with Apple Inc. and Dell, Inc., Alcatel and ALE USA Inc. Net Income increased to \$10,832,000 in September 2016 as compared to the \$407,000 for the three months ended September 30th, 2015. This increase was primarily due to the increase in revenues for the litigation settlements.



Business Strategy:

NTIP currently owns twenty eight patents included as part of these are four main patent portfolio such as Mirror Worlds, Power over Ethernet, Cox and QoS patents. NTIP strategy is to capitalize on their intellectual property assets by entering into licensing arrangements with third parties including manufacturers and users that utilize our intellectual property's proprietary technologies as well as any additional proprietary technologies covered by patents which may be acquired by us in the future. NTIP acquisition strategy is to focus on acquiring high quality patents which management believes have the potential to generate significant licensing opportunities as has been the case with our Remote Power Patent. NTIP also has a strategic strategy with inventors and patent owners to assist in them in the development and monetization of their patent technologies. Included in this strategy is it has strategic plans to protect intellectual property assets, or the intellectual property assets of third parties with whom NTIP has strategic relationships in the future, NTIP believe it may be necessary to assert patent infringement claims against third parties whom are infringing on their patents or those of strategic partners.

Remote Power Patent:

The power over Ethernet patent relates to NTIP "Remote Power Patent" which covers a method for controlling the delivery of power over Ethernet cables, meaning it detects the amount of electricity needed to remotely power specific devices in an Ethernet network such as wireless access ports, IP phones and networked based cameras. This is accomplished by sending low level currents to a device. The current that results from this determines if said objects meet the requirements of a compatible Powered Device in a non-intrusive way, meaning electricity is delivered safely to these devices without being under powered or over powered. This patent is unique because of the methodology and technologies described within the remote power are also integrated into the PoE standard 802.3af set by The Institute of Electrical and Electronic Engineers. This sets a standard for all compliant products of this nature to utilize the detection methods that are covered by this patent. This patent has been true money maker of NTIP which has generated 100m up to date. NTIP has a knack for dragging large tech companies into court on the basis of infringement on their Remote Power Patent to be exact it has had litigation with sixteen data networking equipment manufacturers such as Alcatel-Lucent USA, Inc., Allied Telesis, Inc., Avaya Inc., AXIS Communications Inc., Dell, Inc., Garrett Com, Inc., Hewlett-Packard Company, Huawei Technologies USA, Juniper Networks, Inc., Motorola Solutions, Inc., NEC Corporation, Polycom Inc., Samsung Electronics Co., Ltd., ShoreTel, Inc., Sony Electronics, Inc., and Transition Networks, Inc. Out of these sixteen companies mentioned NTIP has reached settlement and license agreements with twelve out of the sixteen defendants, the remaining defendants include Avaya Inc., AXIS Communications Inc., Hewlett-Packard Company, and Juniper Networks Inc.

An overview of some settlement agreements are as followed, Alcatel and ALE for the fully-paid license was \$4.3 million, Dell is obligated to pay a license initiation fee of \$6 million and royalties based on its sales of PoE products, Polycom, Inc is obligated to pay a license initiation fee of \$5 million for past sales of its Power over Ethernet ("PoE") products and will also pay ongoing royalties based on its sales of PoE products. NTIP has received positive ruling in regards to resolutions of the pending litigations by the courts in a Markman ruling where the court considered defendants' motion for Summary judgment that all claims of the Remote Power Patent are invalid for improper broadening. The court found that all of the original asserted claims of NTIP Remote Power Patent survived the Challenge of improper broadening. Thus proving NTIP has a positive outlook with its pending litigation with the remaining defendants. On top of the pending litigations settlements that can provide future revenue, NTIP is still owed royalty payments of around 12M-15M, for the remaining life of the Remote Power patents which is set to expire in March 2020. Cisco owes a substantial amount of annual royalty payments to NTIP of roughly 9M out of the total 12M-15M until the patent expires.

Mirror World Patent & Cox Patent Portfolios:

This portfolio covers technologies that enable unified search and indexing, displaying and archiving of documents in a computer system. This portfolio of patents has proved to have success in the courts when courts ruled in NTIP favor that Apple Inc. did infringe on the '227' patent which relates to an operating system in which documents are stored in a chronologically ordered "stream". In other words, that is, as each document is presented to the operating system, the document is placed according to a time indicator in the sequence of documents already stored relative to the time indicators of the stored documents. The terms of the settlement saw Apple pay 25M for permission to use the '227' patent as of July 2016. In 2015 Microsoft enter into a settlement agreement and nonexclusive license agreement for the '227' patent, where Microsoft was able to license the patent until it expired in 2016 which they paid NTIP 4.65M. NTIP also received a onetime payment of 17.5M form a settlement of a professional liability claim that relates to services rendered between 2008-2010 through its fully owned subsidiary Mirror World Technologies,LLC, NTIP acquired the claim as part of the Mirror World Portfolio Acquisition. This had seen NTIP around 47.5M form the Mirror Patent Portfolio.

The Cox Portfolio includes 12 issued patents that relate to identifying or tagging uploaded media content and taking business actions based on the identification. For example, specific advertising insertions or offers to purchase goods or services related to identified or tagged content (e.g. music or videos) are covered by the Cox portfolio. This system can also be used to identify whether a newly received work is, in whole or in part, derived from an existing work – enabling the proper rights owner to profit from its distribution. Since December 2016 NTIP has added five new patents to bring its total Cox patent portfolio to 17 Patents. A year after acquiring its first patents NTIP initiated its first litigation in 2014 for infringement on this patent against Google and YouTube and claims these companies continue to infringe certain of NTIP patents by making, using, selling and offering to sell unlicensed systems and related products and services, which include YouTube's Content ID system. On April 2015 Google filed a Petition for Covered Business Method Review at the PTAB seeking to invalidate claims pertaining to the Company's U.S. Patent No. 8,904,46. However in October 2016 the Patent Trial and Appeal Board of the United States Patent and Trademark Office issued its Final Written Decision relating to a challenge made by Google and YouTube to the patentability of one of the patents of Network-1's Cox Patent Portfolio. In its Final Written Decision, the PTAB ruled that Google had failed to show that any of the thirty-four (34) claims of U.S. Patent 8,904,464 were un-patentable. The current case is undergoing a proceeding status, which could go into trial in 2018 if Google and YouTube don't decide to settle, however do to NTIP proven track record there is hope for investors to attain a settlement deal, the final written decision is a step forward towards this goal.

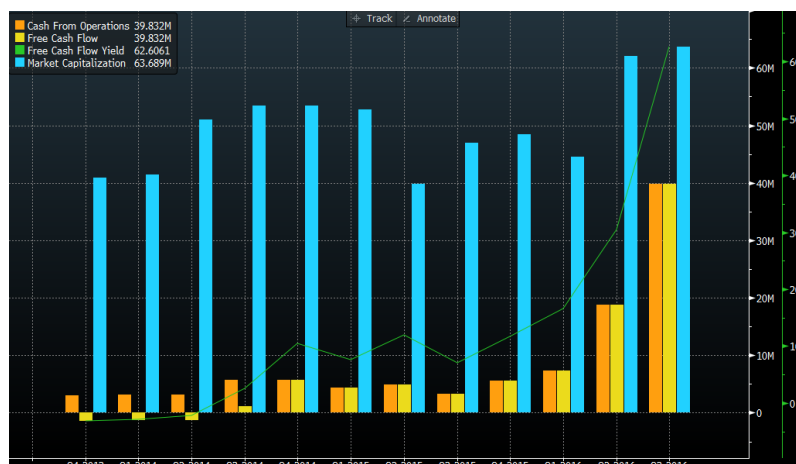
NTIP vs Competitors:

When taking a look at competitors by closest Market cap, around 110M within the Telecommunication Equipment subsector, NTIP 1yr performance has been on level with some of the competitors if not has performed better. Sales growth proves far superior as well as with EBITDA margin, Net Profit Margins, and ROIC. These comparisons show the profitability of NTIP which make it a compelling company. The increase in these profitability ratios have been due to the growth in revenue that NTIP has gained through its litigation settlements over the year. As stated before there are four litigations pending that are concluding in the end of March that can give investors an insight on how future profitability can be impacted if the court rules in NTIP favor, which looks more than likely. Asides from settlements revenues that NTIP can gain, we want to remember the royalties that will be included within these settlements that would be recurring revenues would also support NTIP profitability.

Name	Sales Growth (%)	EBITDA Growth (%)	EBITDA Margin	Operating Income Margin	Net Income Growth (%)	Net Profit Margin	Net Profit/Sales (%)	Return on Invested Capital	Return on Assets	Return on
Median	7.32%	5.62%	7.33%	4.07%	-18.06%	2.11%	1.16%	6.01%	2.42%	5.23%
100) NETWORK-1 TECHNOLOGI...	466.95%	1.10k%	52.29%	50.51%	3.59k%	43.15%	--	57.24%	63.93%	72.99%
101) IKEGAMI TSUSHINKI CO ...	2.93%	-47.37%	2.21%	-0.78%	--	-1.51%	1.31%	-2.04%	-1.28%	-3.19%
102) NERA TELECOMMUNICATI...	4.59%	-47.56%	6.90%	4.09%	-74.95%	1.89%	4.23%	7.37%	2.30%	5.49%
103) CHAMPION TECHNOLOGY ...	-46.49%	40.39%	78.04%	53.99%	-288.66%	-5.27%	0.21%	13.24%	-1.55%	-1.85%
104) EZCONN CORPORATION	10.05%	44.81%	10.54%	8.58%	36.34%	7.36%	2.73%	10.49%	9.67%	15.57%
105) CHINA TRENDS HOLDING...	-22.70%	--	--	-7.15%	-210.07%	-16.78%	0.00%	--	--	--
106) HOTRON PRECISION ELEC...	20.44%	203.15%	15.09%	12.69%	266.39%	7.99%	1.99%	11.51%	7.87%	16.94%
107) ALCATEL LUCENT TELETAS	17.03%	811.35%	7.46%	6.58%	--	9.53%	0.34%	47.03%	12.22%	51.47%
108) DASAN ZHONG SOLUTION...	32.94%	-145.03%	-3.59%	-5.96%	-271.59%	-9.24%	0.81%	-18.40%	-12.19%	-24.26%

Cash Generation:

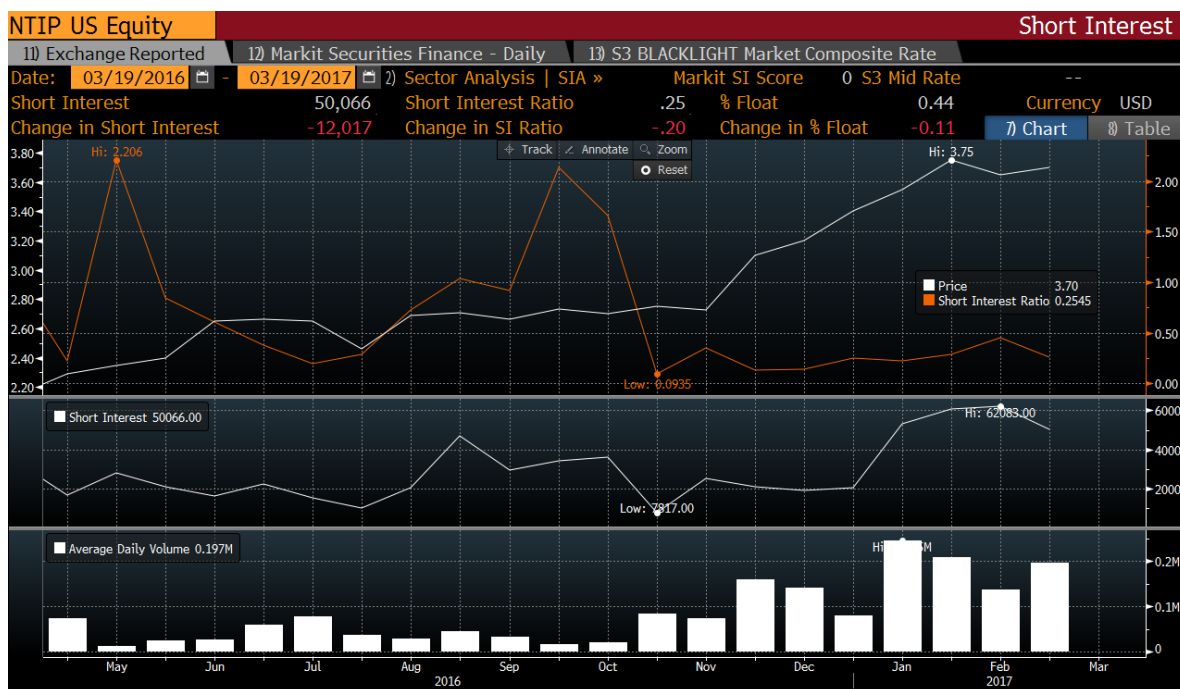
Looking into quarterly cash flow statements NTIP for the third quarter has generated \$39.8m from operating cash flow, has no capital expenditures thus has free cash flow of 39.8M. The market cap for the third quarter was 63.68m, thus it gave us a FCF yield of 62.6% which shows that NTIP is 62.6% which means NTIP is generating 62.3% of its market cap in free cash flow. This FCF yield can also imply a low price free cash flow multiple, also when looking at the chart we see how the FCF yield has been improving while share prices are still relatively low thus it can serve as an indicator NTIP is selling at bargain price. The increased free cash flow generation seen here show signs of great value being created by the company. NTIP is a very liquid company, due to the amount of cash on hand that they have, though not mentioned in their earnings report, NTIP has sufficient cash to acquire another company that has revenue potential patents or greater patent portfolios and would not have to be funded by outside investors. Which could increase the overall value of the company.



Risk Factors:

The risks faced with NTIP should be a given due to its business of acquiring patents, monetizing and licensing them but also protect their patent. Scenarios to consider NTIP only asset that has recurring revenues would be the Remote power patent that has been subject to ongoing legal challenges, NTIP as mentioned before has a litigation pending against four companies for infringement on their Remote power patent which if the courts found invalid at some point it would deny NTIP of any future cash flows. However this Remote Power patent has gone legal review for over ten years and has proven time and time again its validity. As of recent NTIP has had a Markman ruling which favors the decision the courts will take when the remaining litigation against the four defendants concluded at the end of March, 2017. The second scenario would be a failure to win the current litigation with Google and YouTube over Cox patent portfolio however recently the PTAB has recently ruled in favor of NTIP, though still waiting for trial this shows a positive sign in the right direction for NTIP given its winning streak against giant Tech companies. NTIP has proven to be able to with stand a continued fight in court against goliath like companies for protections of its patents and thus I believe its proven track record and court favoring can take away all if not some doubts to investors who see these risk factors as a stay away from investing in NTIP.

Short Interest:



As stated before NTIP does hold risk, upon which investors should consider, however looking at the chart above we see the Short Interest Ratio is low and has decreased 20%. Moreover, looking at the volume being traded it has increased but also the short interest has decreased as the price increased, thus investors are feeling there could be a greater upside than downside. The stock price is trading near an all-time high, but short interest remains very low meaning many investors still see room for the price to increase.

Conclusion:

NTIP is great Microcap that has recorded a flawless winning record of litigation settlements against the goliaths of the tech industry. Their current recurring revenues that they will receive until the end of the Remote Power patent life provides reassurance of revenue not based on only litigations. However as stated previously NTIP does pose that relate to these litigations and further protection of their patent. Nonetheless I feel optimistic about the pending litigations that are set to conclude by the end March 2017 in which I feel like NTIP track record will perceive through and allow them to get settlements and licensing agreements. Thus investors who plan to take a chance with this microcap have a chance achieve a satisfactory capital gain within a one to two year holding period.

GENERAL INFORMATION				GUIDANCE ANALYSIS AVERAGE ESTIMATES								COLOR CODE	
Company Ticker	N/T/P	Revenue	IQ_CQ+1	IQ_CQ+2	IQ_CQ+3	IQ_CQ+4	NTM	1y Growth	Capital Input	Manual Input	Forecast Variable		
Company Name	Network 1 Technologies, Inc.	Revenue	N/A	N/A	N/A	N/A	N/A	N/A					
Industry	Communications Equipment	EBITDA	N/A	N/A	N/A	N/A	N/A	N/A					
Current Price	\$4.70	Operating Cost	N/A	N/A	N/A	N/A	N/A	N/A					
Dividend Yield	2.13%	Op Cost/Rev.	N/A	N/A	N/A	N/A	N/A	N/A					

VALUATION SUMMARY				MONTHLY CASH SIMULATION									
Intrinsic Value	1y-Target Price	1-Year Div. Yield	1y-Target Return	Revenue	EBITDA	Operating Cost	Op Cost/Rev.	Capex	Debt	Equity	Free Cash Flow	Free Cash Yield	Free Cash Payout
\$ 6.41	\$ 6.41	3.8%	40%	\$ 65.57	\$ 6.42	\$ 6.42	N/A	\$ 3.88	\$ 0.00	\$ 0.00	\$ 0.00	0.0%	0.0%

RISK FACTORS				ASSUMPTIONS											
Income Statement	History	Last Reported	Industry (LTM)	Base Year	C.P.	2 per Ann	Justification	History	Last Reported	Industry (LTM)	Base Year	C.P.	2 per Ann	Justification	
Revenue growth	16.37%	466.9%	3.63%	2.26	4.0%	0.00%	The base is set equal to analyst estimates then converges toward Real GDP	Revenue growth	16.37%	466.9%	3.63%	2.26	4.0%	0.00%	The base is set equal to analyst estimates then converges toward Real GDP

DETAILED FINANCIAL STATEMENTS																	
	9/30/2011	9/30/2012	9/30/2013	9/30/2014	9/30/2015	9/30/2016	9/30/2017	9/30/2018	9/30/2019	9/30/2020	9/30/2021	9/30/2022	9/30/2023	9/30/2024	9/30/2025	9/30/2026	Continuing Period
Revenue	\$ 6.80	\$ 8.60	\$ 8.09	\$ 11.84	\$ 11.67	\$ 66.15	\$ 68.31	\$ 70.60	\$ 73.01	\$ 75.56	\$ 78.25	\$ 81.10	\$ 84.10	\$ 87.28	\$ 90.65	\$ 94.21	97.08

DETAILED FINANCIAL STATEMENTS																	
	9/30/2011	9/30/2012	9/30/2013	9/30/2014	9/30/2015	9/30/2016	9/30/2017	9/30/2018	9/30/2019	9/30/2020	9/30/2021	9/30/2022	9/30/2023	9/30/2024	9/30/2025	9/30/2026	Continuing Period
Total Cash	\$ 23.07	\$ 22.77	\$ 20.12	\$ 19.71	\$ 19.09	\$ 58.86	\$ 68.88	\$ 50.38	\$ 53.42	\$ 57.31	\$ 61.75	\$ 65.56	\$ 71.07	\$ 77.06	\$ 82.72	\$ 88.64	93.33

INTERIM COMPUTATIONS FROM PROFORM STATEMENTS																	
	9/30/2011	9/30/2012	9/30/2013	9/30/2014	9/30/2015	9/30/2016	9/30/2017	9/30/2018	9/30/2019	9/30/2020	9/30/2021	9/30/2022	9/30/2023	9/30/2024	9/30/2025	9/30/2026	Continuing Period
EBITDA	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	\$ 20.12	20.12

RISK PREMIUM BY REGION	
Africa	12.2%
Asia	9.0%
Australia & New Zealand	8.1%
Caribbean	11.0%
Central and South America	11.4%
Eastern Europe & Russia	10.2%
Middle East	8.2%
North America	5.0%
Western Europe	7.8%
Grand Total	10.8%