Recommendation

BUY

Upside

15.45%

Recommendation Factors

Fair Value ($)	52.30
EBIT (TTM) ($MM)	1,572.80
Market Cap ($ B)	18.04
B/F P/E Ratio	11.78x
B/F P/E vs Ind.Avg	12.45x

Basic Information

Last Trade ($)	45.30
Trade Date	11/26/2018
Market Cap ($ B)	18.04
Trailing P/E	10.50x
Forward P/E	11.78
P/B	3.04
EPS	4.39
EBITDA TTM $MM	3,490
Altman Z Score	2.76
D/V	0.50
Beta	1.26

Valuation Forecast Analysis

Last Trade	$45.30
High Growth Price	$57.76
Neutral Grwt Price	$52.30
Low Growth Price	$45.91

Industry & Sector

Industry	Oil & Gas
Sector	E&P

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Key takeaways:

- **CLR has the right recipe for success: First mover advantage, great assets, best technology, low transportation costs and low WACC**: 3 prime assets - Bakken, SCOOP and STACK provide for an operating advantage in addition to the first mover advantage in all 3 fields. CLR has approximately 54% of undeveloped reserves with the best average reserves' life of 15 years in the industry.

- **CLR has always beaten market expectations consistently** Moody's upgraded CLR to Investment Grade BBB. The company EPS had quarterly growth of 64% in the last 8 quarters because of higher price realization due to the lowest transportation costs and better technology. Moreover, operating costs, G&A and DD&A decreased annually by 2.70%, 2.60% & 1,38% respectively (2015-18).

- **The Founder CEO Chairman is an oil legend** and owns 76% of the company. He has often been attributed to turning unyielding oil fields into rather easily exploitable fields by technological innovations while remaining frugal. He is respected for oil discoveries in Bakken, SCOOP and STACK.

- **Clear BUY with 15.45% upside return**: Under the Neutral growth scenario there is an upside returns of 15.45% as per our valuation model and under a high growth scenario, an upside returns of 27.50%. Therefore, CLR as of date is a clear BUY.

Brief History

Continental Resources (NYSE: CLR) is an oil exploration and production company based in Oklahoma City in the U.S. The company was founded by its current Chairman and CEO, Harold Hamm in 1967 when he was 21 years of age. Since the early 2000's CLR has become a leading upstream oil and natural gas company that primarily uses hydraulic fracturing and horizontal drilling. CLR went public in 2007, 40 years after its inception and since 2007 Harold Hamm has maintained his equity in the company of 76.89%. Therefore, making CLR a unique public company in this sector i.e. majorly held privately. Interestingly, CLR operates only in the United States. CLR operates in Bakken, SCOOP and STACK.

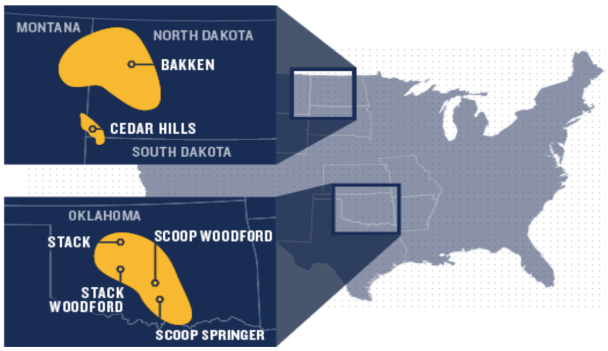

Figure 1: CLR website

Recipe for Success: great assets with best technology

The real strength of the company lies in the fact that it has built a premier portfolio of assets in resource plays that are consistently ranked among the best in the United States. CLR's 52% of proved reserves are Gas and 48% are oil.

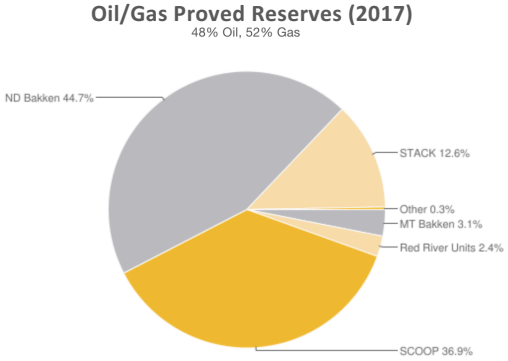

Figure 2: CLR website

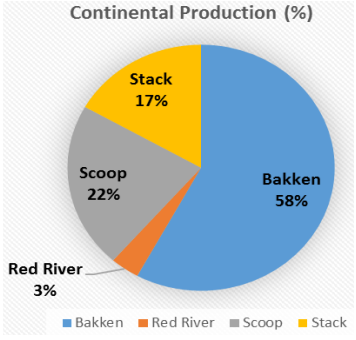

Figure 3

CLR has three core assets—the Bakken in North Dakota and Montana, SCOOP Woodford, SCOOP Springer plays STACK and Northwest Cana plays in Oklahoma. These reserves are consistently ranked in the top tier of the E&P industry in North America as these reserves have significant potential for future development and production growth. Investment returns from these assets rank among the best in the industry. CLR's all three reservoirs contain shale oil and gas.

Leading undeveloped reserves ratios in the industry: 54.78%
The company currently has 54.78% of undeveloped reserves and therefore it has the required assets to boost its production in the decade to come; by transforming its undeveloped reserves.

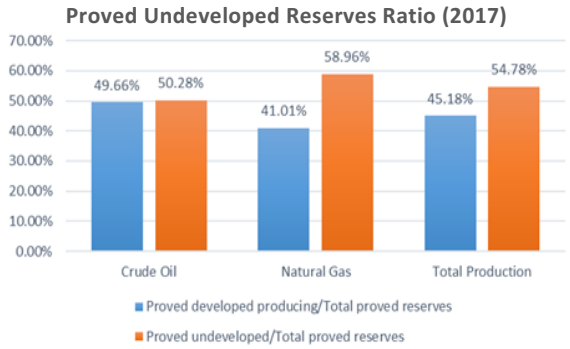

Figure 4

Average life of the reserves 15.03 years; among the highest: Indeed, CLR average life of reserves is 15.03 years whereas the average in the E&P sector is below 12.5 years.

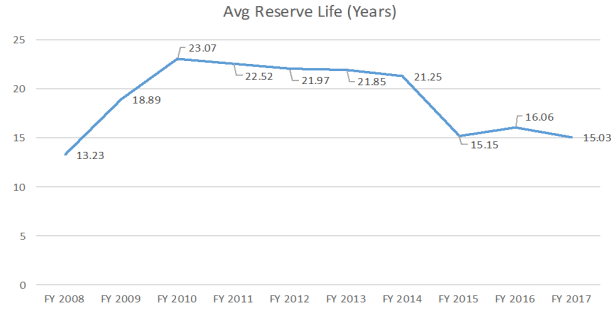

Figure 5

Furthermore, this chart shows that the most important assets such as Montana Bakken and SCOOP has an average reserves life of 16 and 21.6 years respectively.

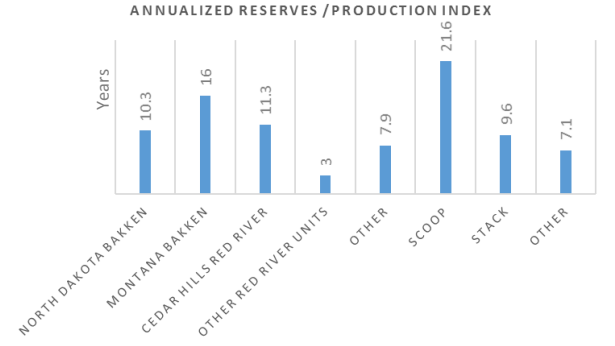

Figure 6

100% Success Rate in drilling and well completion activities:

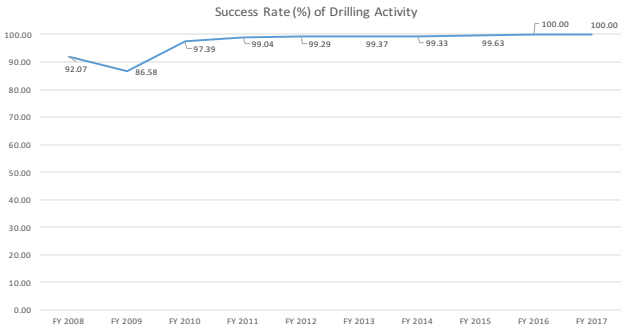

Figure 7

CLR has maintained consistent drilling performance in the last decade and further in 2016 and 2017 the company achieved 100% success rate in its drilling activities. Therefore, we expect CLR have similar exceptional performance in its undeveloped reserves in the coming years especially in the SPRING project and Woodford Area.

Proved reserves have increased by 2.78% CAGR in last 3 years: CLR increased its proved reserves by two main factors; firstly, the company consistently added new reserves in the last years Second, higher oil prices led to upward revisions of the current reserves having a CAGR of 2.78%.

MBoe	2015	2016	2017
Extensions, discoveries and other additions	253,173	249,430	240,206
Proved reserves at end of year	1,225,811	1,274,864	1,330,995

Figure 8

CLR increased production by 22.4% CAGR in the last decade: This chart shows that Continental produced on average 32,900 boepd in 2008 whereas the company in 2017 produced on average 242,600 BOEPD and therefore it has increased its daily production up to 22.4% CAGR in the last ten years.

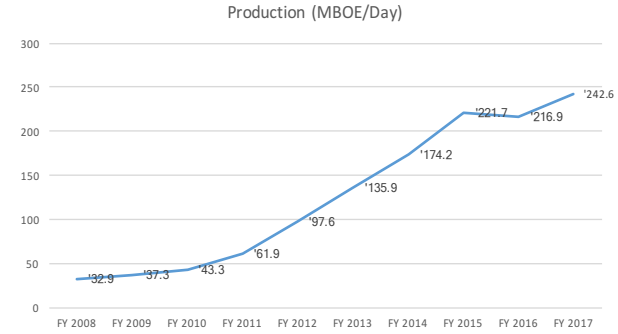

Figure 9

Reserve per Share increased by 3.98% CAGR (2013-17)

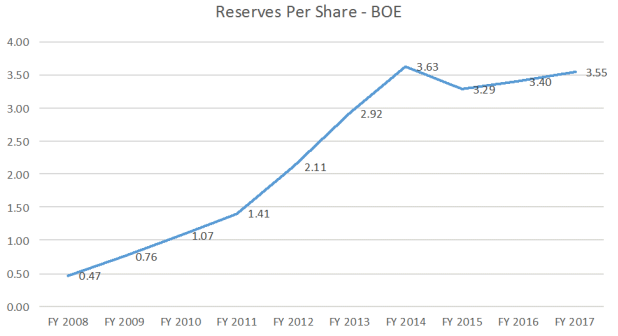

Figure 10

The reserve (BOE) per share consistently increased from 2008 to 2017. However, there has been a decrease from 2014 to 2015 as the oil price peaked right before the crash of 2016. As oil price went down, CLR got active in acquiring more reserves after 2015 thereby the reserve per share increased again. Now with favorable oil price estimates and production increase, investors will benefit even more because of upward reserve revision and additional discoveries in Bakken, STACK and SCOOP.

Bakken

Bakken is among the best reserves in the world and it is the biggest asset in the North US region. CLR played an instrumental role in bringing Bakken to the limelight. CLR is long known to have developed technological competitive advantage by adopting horizontal drilling techniques by 2005. Continental Resources has continuously expanded Bakken field not only geographically but also vertically and that is why in 2008 after initiating shale oil production in the Three Forks Formation it has double its proved reserves. Continental produces with 186 gross wells, drilling on average two-mile lateral well in 12 days. Therefore, the company is ranked among the highest in terms of quality of oil and gas extraction processes. Furthermore, the average reserve life of Bakken is greater than a decade. Bakken has approximately 595 MMBOE of proved reserves in North Dakota and further it has 40 MMBOE in Montana. In 2017, Continental produced on average 165 MBOED from Bakken thereby reaching 57% of daily total production and 61% of total proved reserves.

In 2017, CLR increased its drilling and well completion activities in Bakken especially in the second semester reaching 165,598 BOE in the final quarter (up by 58% YoY) and in North Dakota field, CLR drove production up by 8% in the Q3 of 2018.

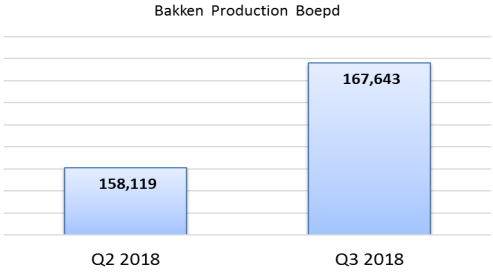

Figure 11

Furthermore, the company increased its proved reserves by 7% because of consistent recoveries driven by the best methods in well completion in the E&P sector. Continental has leveraged its expertise in horizontal drilling techniques and further even as developer of undeveloped reserves. The company has focused its strategy on horizontal drilling methods and the results achieved in Bakken demonstrated that Continental is among the industry leaders.

Continental is currently implementing the use of multi-well pad drilling in all the three premier assets. Regarding the completion methods, Continental is improving its efficiency through the development of various combinations of fluid types, proppant types and volumes and that is why it is able to recover more reserves from its recoverable resources. Furthermore, there has been upward revision due to higher commodity prices that raised the value of Bakken reserves. In Q1, CLR enhanced drilling and completion activities in Bakken DUC (drilled but uncompleted well). CLR started to build its Bakken DUC in 2017 by producing on average 158,119 BOEPD (1.2 MMBOE) a new record for CLR with oil that was more than 65% in the production ratio against Gas. The company increased its production from Bakken by 6.02% between Q2-Q3 2018.

STACK Meramec and SCOOP

STACK and SCOOP are the premier asset in the South US Region. The Stack in Oklahoma has been an extraordinary introduction for Continental in 2016. In its initial period itself, CLR was able to produce 21,000 BOE of shale oil, one of the best quality in North America from these reserves. Furthermore, these reserves are nearby the most important refiners in the United States which has allowed CLR to drive down transportation costs and stipulate favorable contract that ended in higher crude realization price. STACK has the potential to increase Continental's proved reserves by 35% and therefore the company leased more than 200,000 net acres in order to securitize this onshore site. STACK contains shale oil and gas and therefore it is diversified between these

two commodities. STACK has approximately 168 MMBOE of proved reserves with 160 net producing wells and it has average daily production of approximately 40 MBOE. Continental's management believes that STACK will be one of the most important driver of production growth in the next decade. It is important to note here that the management of CLR is known to have identified valuable assets in the past too; Bakken being a great example.

SCOOP was unveiled in October 2012 and it represents approximately 30% of the production of Continental Resources. This onshore site in southern Oklahoma primarily produces majorly oil i.e. 77% is oil. SCOOP has approximately 492 MMBOE of proved reserves (i.e. 36.1% of the total proved reserves) and it has averaged daily production of approximately 62 MBOED. It has 260 net producing well.

CLR has developed SCOOP in the last 6 years by combining vertical and horizontal drilling techniques with hydraulic fracturing; thereby tremendously increasing its proved reserves. Especially because the majority of the resources were located below the freshwater sources and before it was not possible to drill so in depth. The SCOOP produced on average 62,242 Boepd in Q4 2017 representing 22% of CLR oil production. Furthermore, the Spring started to produce at the end of third quarter of 2018 and Sycamore Project Phase II, will start producing first oil barrel first quarter 2019 respectively.

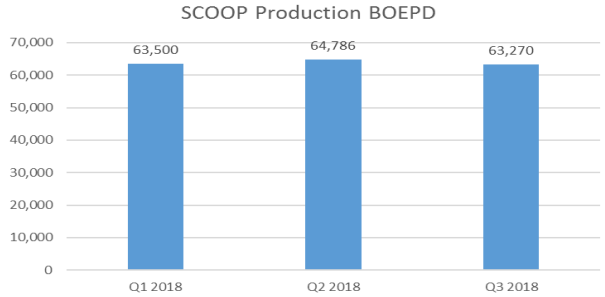

Figure 12

This chart does not contain the Springer project additional 9,200 BOEPD. Annual production is expected to average 300,000 BOEPD for 2018 as CLR is expecting to produce 325,000 BOEPD in Q4 2018 because of the increase of the Phase I of the Springer Project (85% of crude oil). **In Q4 2018, Spring project** will increase by 33% oil production operating with 7 net wells. Furthermore, in the Woodford and Sycamore field, CLR is planning to use 6 additional rig that will be installed at the beginning of 2019. In fact, the company will receive at the end Q4 2018, $220 million from asset disposal that will directly be used to build SCOOP and STACK area. Additionally, CLR is expecting to develop at least three additional reserves that will increase production in the coming years.

STACK will benefit from Woodford and Sycamore: STACK has approximately 389,400 gross (212,400 net) acres under lease and it has world premier resources that account 13% of CLR's proved reserves and 17% of oil production in the last quarter of 2017. STACK has currently 180 gross wells that CLR developed this year in order to start production in the Woodford and Sycamore area. In STACK, CLR produced 56,129 BOEPD increasing production by 58% compared with the Q3 2017. CLR started its production in the undeveloped reserves with 5 operating drilling rigs in the Phase II of Sycamore. The company benefited from exceptional performance in the Jalou unit (GAS), the Homsey unit (OIL) and the Simba unit (GAS). The company is currently developing additional 65 units in the oil and condensate windows. Furthermore, in the Woodford and Sycamore field, CLR is planning to use 6 additional rig that will be installed at the beginning of 2019.

Financial Analysis

CLR will increase production for higher free cash flow: As production from the Springer Project Phase I, Woodford and Sycamore Phase II will add approximately 30,000 BOEPD in 2019, the overall production will continue to rise. Furthermore, historically CLR has been increasing its production by 8.64% annually, with similar undeveloped reserve ratio. Therefore, we expect CLR to reach 326,975 BOEPD on average in 2019 and approximately 537,550 BOEPD in 2025.

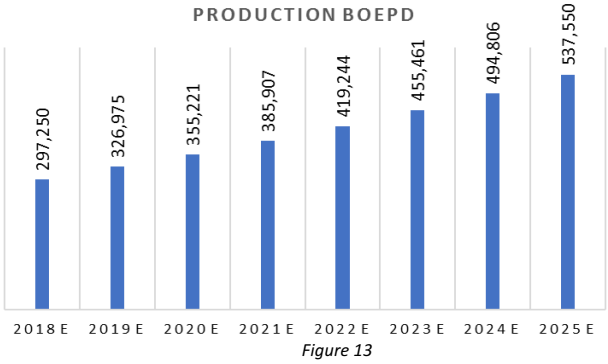

Figure 13

Historical analysis shows that in North Dakota Bakken, the production increased by 8% in 2017 compared to 2016. In the Southern region, in STACK there has been an increase by 104% in 2017 compared to 2016. In fact, CLR produced 1,614 MBLS because of additional well being completed and optimized drilling activities. Furthermore, in STACK gas extraction increased by 116% reaching 32,342 MMCF and natural gas production in North Dakota Bakken increased by 8,700 MMCF (17%) in the last year. That is why there has been an increase of natural gas production from 41% to 43% in the total production by Continental.

However, there has been some contractions in Montana Bakken and Red River units as the fields suffered natural decline and thus partially offset the production increase. Indeed, in the Red River unit production of white oil decreased by 9% because of limited drilling activities in that area. In Montana there has been a decrease of 24% in the last quarter.

Improved profitability performance by containing costs, technical innovations and optimized completions: CLR outperformed its expectations in the last 2 years.

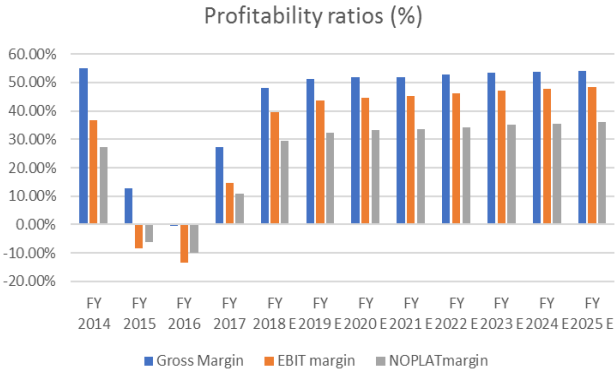

Figure 14

In fact, it has consistently improved its return on sales ratios in the last 10 quarters. In Q4 2016 the profit margin was negative whereas in the Q3 2018 it reached approximately +27%

resulting in being one of the best in the sector. Moreover, in Q3 2018, operating profit (40%) and gross margin (43%) consistently continued to increase since early 2017. Therefore, we expect the company to consistently increase profitability ratios in the next 7 years too.

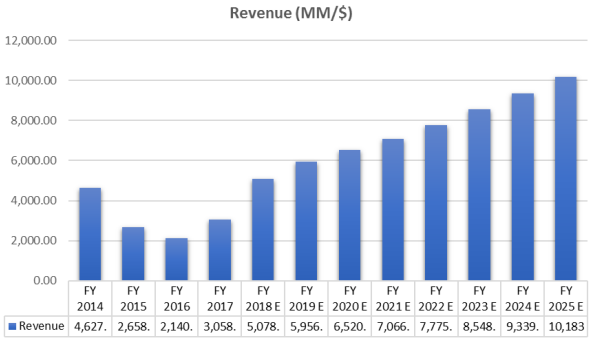

Figure 15

Revenues have increased by 9.89% quarterly whereas the cost of revenues increased by 4.75% in last 8 Quarters. Therefore, gross profit has increased because the revenues have had higher growth rate compared to the cost of revenues.

In 2017, the total revenues were equal to approximately $2.98 billion having an increase by 47% compared to 2016. The main factor that led to this increase were higher commodity prices and better efficiency. Indeed, on average commodities prices drove up by 32% in 2017. Continental had higher price realizations because of the introduction of new pipeline, additional market available nearby Bakken and growth in South Region that has low transportation costs as most of the refiners are in proximity of Oklahoma. Therefore, because of increased production and commodity prices above $60.00 per barrel we expect revenues to increase by 10.45% CAGR from 2018 to 2025.

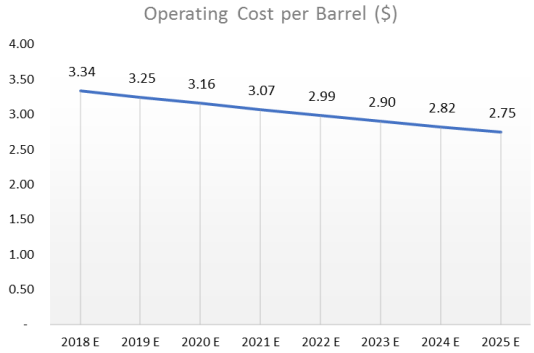

Figure 16

CLR is expected to reach operating expenses < $3.00 per BOE: In our valuation model we expect that production expenses per BOE will decrease by 2.76% as it decreased at the same rate in North Dakota Bakken in the last 3 years when oil prices were relatively low. CLR's Operating costs decreased by 17% on average in the three years over all the 3 major sites.

CLR has the lowest LOE in its peers: CLR not merely owns prime assets but also operates assets owned by others. Lease Operating Expenses (LOE) – the costs of maintaining and operating property and equipment on a producing oil and gas lease. In fact, the operating costs decreased by 2.8% per barrel of equivalent in Bakken and SCOOP whereas in STACK there has been a fall by 29.8% from 2015 to 2017. The reduction of the costs was primarily due to better technology such as Eco-Pad, Horizontal drilling techniques combined with hydraulic fracturing and stimulation of well. In fact, in the last quarter of 2017, production expenses per BOE were equal to $3.17 on average in the Bakken whereas in 2016 the production expenses were equal to $4.59 BOE.

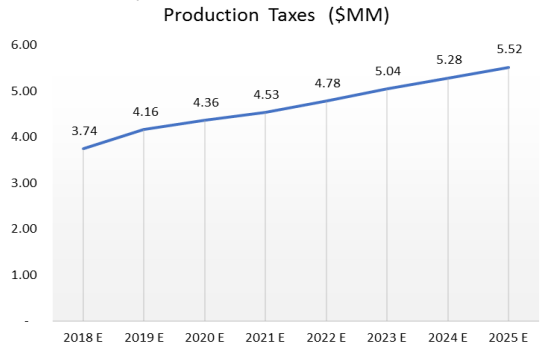

Figure 17

Production Carbon Taxes: Oklahoma state imposes Production or Severance Tax on mining fossil fuels or other polluting resources. Production tax has been increasing and is therefore assumed to increase at the historical rate of 4.15% per barrel from 2018 to 2025. CLR is currently paying 8% of the net sales in production taxes and we expect that it will continuously pay an increasing amount in the coming years because as production goes up, the taxes on the same shall also rise. We understand that the production taxes are correlated to production and crude oil prices because production taxes increased by 46% in 2017 compared to 2016, primarily because of higher crude oil prices.

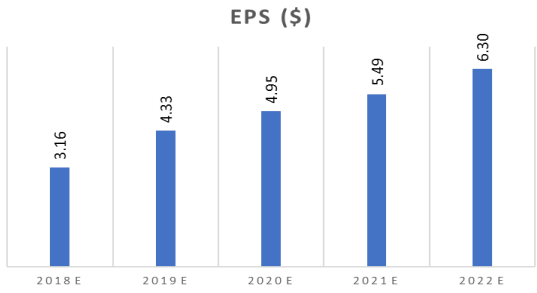

Figure 18

CLR will be able to increase production and to contain operating costs as well as positive upward revisions and additional discoveries. According to our valuation model, CLR's EPS in 2019 will be equal to $4.33. Given all the reasons above, we expect an increase by 7.13% CAGR in the earnings per share from 2018 to 2025.

CLR maintains strong liquidity and solvency ratios: The company reduced its long-term debt by paying 1.3 billion dollars in the last quarter**.** In February 2018, CLR was also upgraded to Investment grade by S&P to BBB.

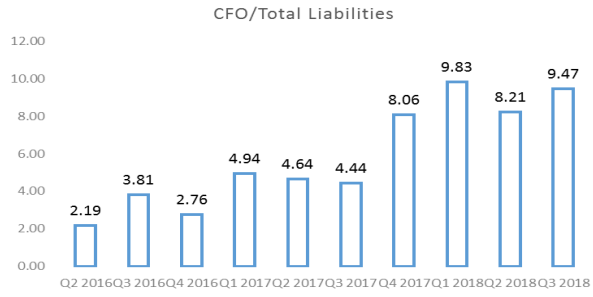

Figure 19

Harold Hamm (CEO and Chairman) was able to open an unsecured credit facility maturing on May 16, 2019 from a syndicate of 17 banks and financial intermediaries. Continental can optionally borrow up to $2.65 Billion because Continental

was able to set revolving credit facility independently from commodity prices fluctuation.

Continental will continue to increasingly pay its liabilities with its Cash from operating activities. Now the ratio of cash from operations (CFO) to Liabilities is equal to 9.47 making Continental strong from a liquidity perspective.

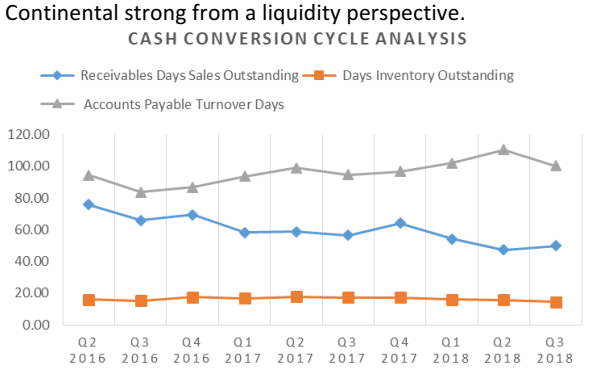

Figure 18

CLR's Cash Conversion Cycle is negative; one of the best in the industry as it means that CLR is able to collect cash from its operations before it has to pay its short-term liabilities. In fact, the company normally takes 15 days to sell its inventory and 50 days for collecting its account receivables while it pays its payables after 95 days on average.

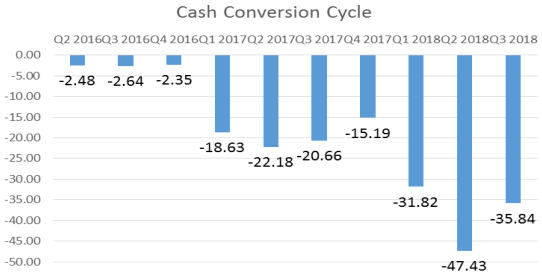

Figure 19

CLR management has consistently improved its CCC from Q2 2016 to Q2 2018 and it is equal to -35.84 days as of Q3 2018. CLR is able to collect cash before it has to pay its payables and therefore the company has strong liquidity and in fact the CCC in the industry is approximately 11 days. The day sales outstanding decreased by 4.25% fromQ2 2016 to Q3 2018.quarterly from 75.73 days to 49.94 days. The payables days increased by 0.62% quarterly improving even more the CCC. As a matter of fact, CLR has one of the top tier inventory management in the E&P industry in the U.S.

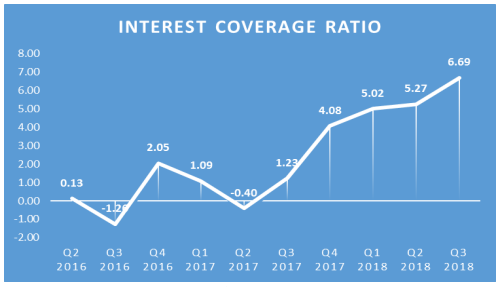

Figure 20

Continental continuously improved its interest coverage ratio after the Q2 2017. In the energy sector, a minimum satisfactory interest coverage ratio is 2.00, and this measures the company's ability to handle its outstanding debt. Contemporary CLR has 6.69 interest coverage ratio and therefore it means that it can pays 6.69 times its interest payments.

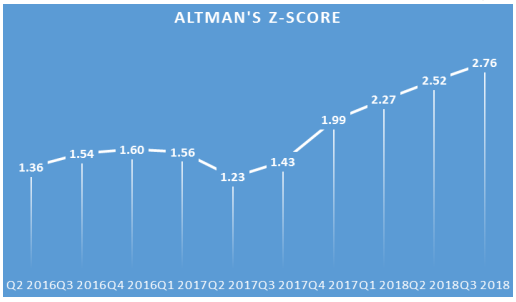

Figure 21

Investors can use Altman Z-scores to determine how likely is the company to go bankrupt. Altman Z-scores below 1.8 means that it is likely that there is a stronger possibility for a company to go bankrupt, while companies with scores above 3 are likely to be very stable when it comes to bankruptcy. CLR's AZ score has improved significantly over the last 2 years, thus showing fairly nice financial stability and liquidity.

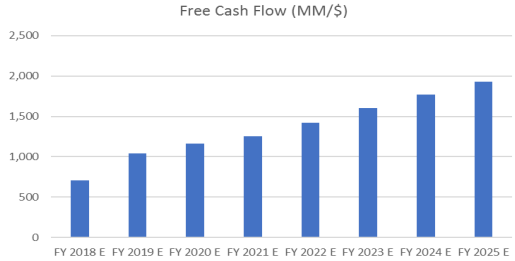

Figure 22

Based on our neutral growth scenario, we assume that the Free Cash Flow will increase by 15.43% CAGR from 2018 to 2025 as the company will generate more cash flow from operations that will consistently exceed its capital expenditures and its net working capital needs (for more details, check the valuation section below).

CLR has consistently reduced its WACC over the last decade.

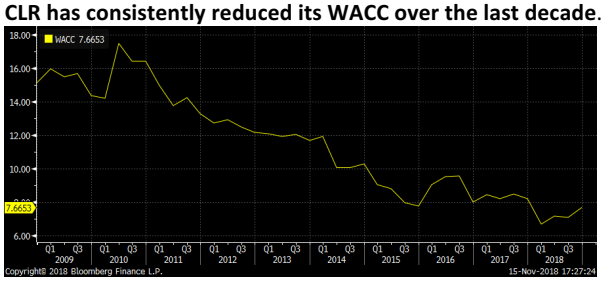

Figure 23: Bloomberg

CLR's WACC as of Q3 2018 is 7.66%.

Peer Comparison

CLR has a lower blended forward P/E ratio compared to its industry peers with similar market capitalization. The average in the industry is 14.26x whereas CLR's blended forward P/E is 11.78x. Therefore, investors can reap higher earnings with the same amount of money invested in CLR than in E&P industry.

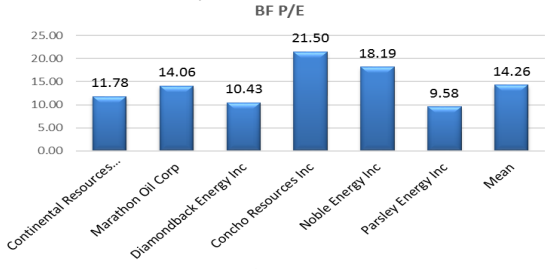

Figure24

CLR's blended forward EV/EBITDA for 2019 is equal to 5.34x where the industry mean of its peers with comparable market

capitalization is 5.68x. In this case, the ratio is approximately equal to industry means. Regarding the blended forward EV/EBIT for 2019, CLR has a lower ratio compared to its peers.

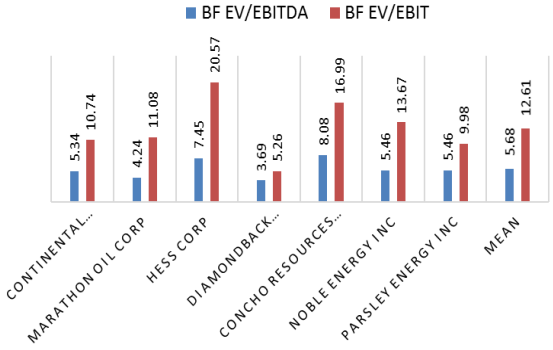

Figure25

Because CLR usually has relatively higher leverage and lower cash, the blended forward EV/EBIT is equal to 5.34x whereas the entire industry's average BF EV/EBIT is 12.61x. Regarding the blended forward EV/EBIT, CLR has a lower ratio compared to its peers.

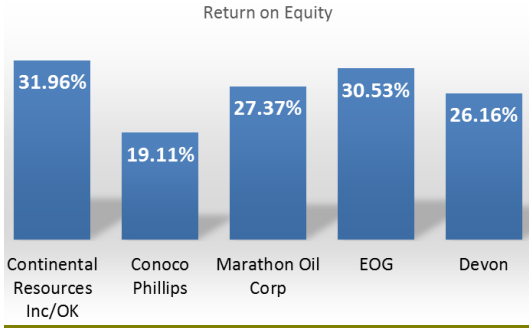

Figure 26

CLR had the highest ROE in the third quarter of 2018 with its peers with similar Debt to Capital ratio. CLR's ROE is 31.96% whereas the average between its comparable is 25.79%. Therefore, the company has currently the best ROE in Q3 2018.

Major Risks

1. **No clear succession plan:** One of the major risks of CLR is that Mr. Harold Hamm, the founder, Chairman and CEO of the company is turning 73 this December and still owns 76% of the public company. He has had two marriages and several kids, an exceptionally efficient management team of C-suite professionals but it so appears that there is no *second-in-command*. Undoubtedly, Mr. Hamm has consistently brought added value to the company. The CEO is one of the most renowned and expert in the oil exploration and production industry. In a way he is respected to have discovered the Bakken field and he has developed the SCOOP and the STACK in Oklahoma. Therefore, giving him the first mover advantage time and again. Given, no clear plan in place if something happens to Mr. Hamm; we are forced to estimate an adverse case scenario to see what is the value that Mr. Hamm and his current management add to the operations of the company. For this, we have used this formula: *Hamm and his current management's added value to the firm = Operating value of the Firm – (CLR's saleable assets at PV – liabilities).* Operating value of the firm according to our valuation is: $26,085 MM (the PV of future FCF in our neutral scenario)**.** CLR's saleable assets at PV is equal to the amount of proved reserves sold at the current WTI and natural gas weighted average market price of $63.00 and $25.71 respectively. Therefore, NAV = $20,394 B. Therefore, Mr. Hamm and his current management's added value = ($26.085 B)- ($20.394 B) = $5.690 B. Therefore, if Mr. Hamm and his current management is taken out of the picture, the company loses an equity value of $5.69 Billion i.e. approximately 22% loss in equity value.

MMBOE Proved reserves 1,331			Developed Reseves	Value	Market Price	NAV MM$
Gas	52%	692.12	58%	401.43	25.71	10,320.76
Oil	48%	638.88	50%	319.44	60.00	19,166.40
Total	1,331					29,487.16
Market Value of total Liabilities						9,092.25
NAV						20,394.91

Figure 27

2. **Carbon tax and Environmental Risks:** Continental Resources business is subject to environmental risk and regulation that can increase administrative, civil or criminal penalties because of damages to the environment or non-compliance of existing regulation. However, this risk is minimal for CLR because they are already paying heavy Production Taxes over Operating Costs. In fact, they are placed in the state of Oklahoma where their Production Tax per BOE > Operating Cost per BOE. In our valuation scenarios we have assumed a continued rise of Production Tax by 4.15% p.a. thus factoring in this risk already.
3. **Commodity Price volatility:** Oil and Gas being a commodity, the prices are obviously volatile. This coming 6th December, 2018 there will be another major OPEC meeting that will definitely shape the commodity prices for the next quarters to come. As we cannot predict exactly what might be the outcome of the forthcoming OPEC meeting, we have statistically estimated oil price windows by running 10 years' historical analysis of monthly WTI prices. In the last 119 months the WTI has been above $102.00 per barrel (10.08%) for 12 months and below $50.00 for 10 months. Therefore, there is the 81.51% of probability that the oil price will be between $50.00 per barrel and $102.00. The average of the last ten years has been 72.95 with a standard deviation equal to $22.04. The maximum and minimum price, (weighted average of a month) have been $109.53 (April 2011) and $30.32 (February 2016) respectively.

WTI Normal Distribution *(Nov 2008 - Oct 2018)*

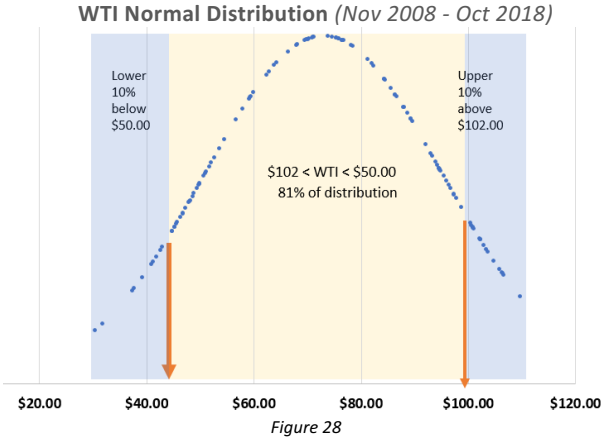

Figure 28

4. **Commodity Price Hedges:** CLR is also known for carrying rather low commodity price hedges when compared to its industry peers. The graph below shows the oil and gas price above which CLR remains unhedged, thus risking the revenue streams.

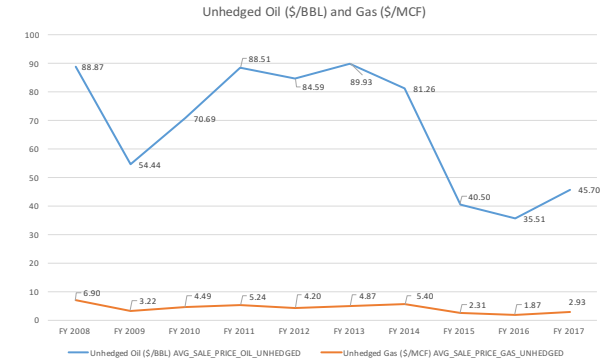

Figure 29

5. **Carrying too much debt:** CLR's founder CEO chairman, Mr. Hamm is also infamous for carrying too much debt in the name of not giving up equity. Though he has recovered from the most recent oil price slump only stronger, but how long can he continue to do this remains unclear and therefore risky. Hamm is known for not surrendering to any offers of capital that come his way, in return for some equity.

Ownership

Top Ownership Type (%)

Ownership Type	11/11/18	Curr	Change
Individual	75.69	76.62	+0.93
Investment Advisor	18.71	18.21	-0.50
Hedge Fund Manager	3.11	2.78	-0.33
Pension Fund	0.84	0.83	-0.01
Bank	0.72	0.68	-0.04
Government	0.41	0.4	-0.01
Sovereign Wealth Fund	0.23	0.24	+0.01
Insurance Company	0.17	0.14	-0.03
Corporation	0.06	0.06	0.00

Source: Bloomberg Terminal, Figure 30

CLR is majorly owned by Mr. Harold Hamm, and the next major investor in the company as of 11/11/18 was Investment Advisors followed by Hedge Fund Managers and Pension Funds. It is to be noted that the top 3 institutional funds have bought Hess over rather higher prices during 2018. As of 11/26/2018, CLR is at one of the lowest prices in this calendar year.

FMR LLC – Bought over 2018

Source: Bloomberg Terminal, Figure 31

Vanguard – Bought over 2018

Source: Bloomberg Terminal, Figure 32

Blackrock Asset Management – Bought over 2018

Source: Bloomberg Terminal, Figure 33

Valuation

Neutral Scenario

Revenue Assumptions:

1. **Escalating Oil and Natural Gas Price**: The revenues are based on an escalating oil & Gas price based on the estimates of the Canada Energy Board and EIA from 2018 to 2025. We have adjusted the weighted average price with the differential between Continental realization price and WTI. CLR is currently expecting to reduce WTI to realization price differential to

$3.50 per barrel. In fact, the company operates very close to the refiners to lower transportation costs and increase the realized price.

a. the weighted average price of oil price per barrel from 2018 to 2025 is considered to be $72.39
b. the weighted average price of Natural Gas (MCFD) from 2018 to 2025 is considered to be $4.19 or $24.23 per Boe

Revenue Assumptions								
	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Weighted Average Price Natural Gas Liquids (per barrel) project as per EIA	25.71	24.20	25.15	24.59	24.05	23.98	23.36	22.79
Canada Energy Board Oil Price Estimation WTI	63.00	70.00	70.50	71.30	73.50	75.30	77.00	78.50
Gas % of total production increases at 1.01% (historical CAGR)	43%	44%	44%	45%	45%	46%	46%	47%
Gas BOE Production Boed	129'066	143'421	155'810	169'270	183'892	199'778	217'036	235'785
Oil Production BOED	168'184	183'554	197'822	213'166	229'667	247'406	266'473	286'962
Production BOED	297'250	326'975	355'221	385'907	419'244	455'461	494'806	537'550
Rate of increase in Production		10.00%	8.64%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 34

2. **Increased production from Continental Resources**: CLR is known for increasing its production by 22.25% CAGR in the last 11 years. We expect that CLR will continue to increase its production from its undeveloped reserves in the next years. In the STACK, CLR is currently developing additional 65 units in the oil and condensate windows. We assume that it will meet its expectation to produce first oil in the first quarter of 2019 and therefore it will add 10,000 BOEPD from its current daily production. Furthermore, in the SCOOP the SPRING project (Phase I) and the Woodford and Sycamore (phase II), CLR started its first oil production in Q3 with 14 drilling rigs. Furthermore, the company installed 6 additional rigs in Woodford and we expect that CLR will develop its 3 additional reserves in the coming years. In Springer, we assume that CLR will produce additional 9,200 Boepd, whereas in Woodford and Sycamore we expect production to start at the end of first quarter 2019 with 70% of oil produced. This increase will partially be offset by the decrease in the Red River unit due to natural decline of the field. According to our estimates we expect that CLR will produce 300,000 Boepd in 2018 and 330,000 Boepd in 2019. Therefore, we assume that the production will continue to increase in 2019 by 10% as between 2018 and 2019 CLR's production will depend strongly on Bakken. Bakken alone increased production in the Q3, 2018 by 23% when compared to 2017. From 2020 CLR's production is assumed to increase at a rather conservative 8.64% annually i.e. based on historical rise in production during relatively lower prices (2015-17).

Cost of revenues assumptions:

1. **Decreasing Operating Cost per Barrel**: In the last 8 quarter the operating cost per barrel has consistently decreased because of technological competitive advantage such as optimized completion well and the combination of horizontal drilling techniques with hydraulic fracturing. These methods have allowed CLR to spend less than $3.17 per barrel on operating costs on average in the three main assets in the first two quarter of 2018. We assumed that the company will spend $3.34 in 2018 as Bakken will continue to produce more compared SCOOP and STACK. However, due to the start of Springer and Woodford and Sycamore we expect to reduce the overall cost on average as these two sites are by far cheaper than Bakken. From 2019 to 2025, we expect the operating cost to decrease at the historical rate of 2.76% CAGR as CLR will be able to continuously improve its technological competitive advantage.

Cost of Revenue Assumptions								
	2018 E	2019 E	2020 E	2021 E	2022 E	2023 E	2024 E	2025 E
Operating Cost/BOE with -2.76% CAGR	3.34	3.25	3.16	3.07	2.99	2.90	2.82	2.75
Production Carbon Taxes Rate increases at historical CAGR of 4.15%	8%	8.33%	8.68%	9.04%	9.41%	9.80%	10.21%	10.63%
Total Production Carbon Taxes ($MM)	406.27	496.29	565.87	638.70	731.94	838.09	953.65	1'082.89
Production Carbon Taxes/BOE	3.74	4.16	4.36	4.53	4.78	5.04	5.28	5.52
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
Rate of increase in Production		10.00%	8.64%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 35

2. **Production Taxes:** is imposed on companies that generate revenues by depleting non-renewable resources. Such companies include producers of oil and gas, coal miners and miners of metals and minerals. In Oklahoma, Production Tax is levied at a basic rate of 7% upon the production of oil and gas. Under legislation approved in the 2017 special session (HB 1010xx), oil and gas from newly-spudded wells will be taxed at 5 percent for the first 36 months of production effective June 27, 2018. Previously, new production was being taxed at 2 percent for 36 months. However, on an overall, we have assumed the production tax to be increasing at 4.15% of historical growth rate. Therefore, it starts from the present tax slab (Q3 2018) of 8% and increases yearly. Production tax is also supposed to increase as the production continues to increase consistently for CLR.
3. **Inflation and rise in costs**: The cost of revenue will increase because of US inflation rate of 2.4% (Source IMF) so the costs will grow at the same rate as inflation.

Capex, DD&A:

1. **DD&A:** CLR has consistently decreased its Depreciation, Depletion and Amortization expenses in the last 4 years. DD&A decreased in the last years because there has been positive revision on CLR proved reserves due to new discoveries of additional undeveloped reserves in Bakken, SCOOP and STACK. In the Q3 of 2018 DD&A expense per BOE were equal to $17.15. We assume that the company will decrease its DD&A per BOE as the rate of the last five years was -1.38% CAGR. We believe that there will be additional revision in the Spring, Sycamore and North Dakota Bakken as CLR is continuously exploring laterally its proved reserves.

2. **Capex will increase at the same rate as production:** CLR has increased its capital expenditures from $2.1 billion to $2.7billion this year as the company will produce more than 20% compared to 2017. After performing a regression analysis, we have seen a direct correlation between Capex and rate of production and that is why we assume the Capex to growth at the same rate of CLR production.

Capex & DD&A								
	2018	2019	2020	2021	2022	2023	2024	2025
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
DD&A per BOE	17.15	16.91	16.68	16.45	16.22	16.00	15.78	15.56
DD&A Rate (CAGR last 5 years depreciation)	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%
DD&A	1'861	2'019	2'163	2'317	2'482	2'660	2'850	3'053
Capex $MM	2'700	2'970	3'227	3'505	3'808	4'137	4'494	4'883
Capex increase by year	600.00	270.00	256.57	278.73	302.81	328.97	357.38	388.26

Figure 36

3. **Inflation and rise in costs:** DD&A and Capex will also depend on the U.S inflation rate (IMF) from 2018 and 2025. Non-operating expenses are also assumed to increase at the inflation rate.

Non-operating expense assumption:

1. **G&A will increase overall because higher employee compensation:** The total amount of G&A increased by 13% in 2017 from $169.6 million to $191.7 million because there has been an increase in non-cash charges for employee compensation. The company decided to increase employee compensation due to its strong performance in 2017. We assumed that G&A per BOE will be at $1.61 for 2018 as it was in Q3 2018 but it will decrease at 2.6% CAGR as it did from 2015 to 2017. For future projections, we considered the historical rate of G&A/BOE expense rate from 2015-17 only because the technology and the low price scenario for future is more comparable to 2015-17 period than to high growth and high oil price scenario of 2009-2014. Furthermore, historically the company has consistently been increasing employee compensation with higher price and higher level of production. Therefore, we assume that employee compensation will increase at the same differential of the NOPLAT.

Non Operating Expenses								
	2018	2019	2020	2021	2022	2023	2024	2025
G&A/BOE -2.6% CAGR	1.61	1.57	1.53	1.49	1.45	1.41	1.37	1.34
G&A rate increase because employee compensation NOPLAT differential	13.21%	10.00%	8.64%	8.64%	8.64%	8.64%	8.64%	8.64%
G&A cost	202.50	210.81	220.30	233.11	246.66	261.00	276.18	292.24
Other Operating Expenses (Impairment included + added Inflation)	233.54	239.15	244.89	250.76	256.78	262.95	269.26	275.72
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%

Figure 37

2. **Other Operating Expenses will increase at the same rate of inflation:** The other operating expenses are majorly impairments that occurred when CLR disposed assets in the last 5 years. Even if we do not know whether CLR is going to sell additional mature assets in their portfolio, we assumed on a precautionary basis that the other operating expenses will be equal to 2017 value adjusted with inflation. We realise that this is being conservative but we wanted to be so while proposing a Buy.

Net Working Capital assumption:

1. **Net Working Capital is correlated at the same rate of production:** CLR has negative working capital as the company as a current ratio lower than 1. We expect that the company will not increase its current asset compared to its current liabilities as it will repay its senior notes. Therefore, CLR's Net Working Capital decreases at the same production rate mentioned in the revenue assumptions.

Net Working Capital Assumptions								
	2018	2019	2020	2021	2022	2023	2024	2025
Net Working Capital	-42.8	-47.07	-51.78	-56.96	-62.66	-68.92	-75.81	-83.40
Rate of increase in Production		10.00%	8.64%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 38

The change is net working capital of -42.8 in 2018 is explained by the historical table below:

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Total Current Assets	1'389.6	822.3	913.2	1'251.7	1'369.1
Total Current Liabilities	1'952.0	923.0	932.4	1'330.2	1'490.4
Working Capital	-562.4	-100.7	-19.2	-78.5	-121.3
Δ Net Working Capital		**461.7**	**81.5**	**-59.4**	**-42.8**

Figure 39

WACC assumptions:

1. The **corporate tax** is equal to 25.70% in Oklahoma state where Continental Resources is based.

U.S Corporate Tax Rate for Oklahoma								
	2018	2019	2020	2021	2022	2023	2024	2025
U.S Corporate Tax Rate for Oklahoma	25.70%	25.70%	25.70%	25.70%	25.70%	25.70%	25.70%	25.70%

Figure 40

2. CLR' **Beta** is equal to 1.26
3. **Market Premium Risk** is equal to 6.5% (*source: Damodaran*)
4. **Risk free rate** is the US Treasury bond yield 10 years with a rate of 3.05%

Wacc	
Beta (Reuteurs)	*1.26*
Cost of Equity	*11.24%*
Cost of Debt (Bloomberg)	*5.07%*
Oklahoma tax	*25.70%*
D/V	*50%*
E/V	*50%*
WACC	*7.50%*

Figure 41

5. **Continental Resources has been assumed to have constant 7.50% WACC.**

DCF Analysis:

In Millions of USD except Per Share	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018 E	FY 2019 E	FY 2020 E	FY 2021 E	FY 2022 E	FY 2023 E	FY 2024 E	FY 2025 E
Revenue	4'627.21	2'658.64	2'140.96	3'058.74	5'078.42	5'956.48	6'520.89	7'066.90	7'775.90	8'548.76	9'339.97	10'183.10
Cost of revenues	724.10	566.87	443.06	549.37	777.35	893.21	985.17	1'081.65	1'199.88	1'332.42	1'475.86	1'634.55
DDA	1'358.67	1'749.06	1'708.74	1'674.90	1'860.71	2'018.54	2'162.65	2'317.05	2'482.47	2'659.70	2'849.59	3'053.03
Gross profit	***2'544.44***	***342.71***	***-10.85***	***834.46***	***2'440.36***	***3'044.73***	***3'373.07***	***3'668.20***	***4'093.56***	***4'556.65***	***5'014.52***	***5'495.52***
% margin	54.99%	12.89%	-0.51%	27.28%	48.05%	51.12%	51.73%	51.91%	52.64%	53.30%	53.69%	53.97%
G&A	184.66	189.85	169.58	191.71	202.50	210.81	220.30	233.11	246.66	261.00	276.18	292.24
Non Operating Expenses	666.36	376.86	107.10	193.36	233.54	239.15	244.89	250.76	256.78	262.95	269.26	275.72
EBIT	***1'693.43***	***-224.00***	***-287.53***	***449.40***	***2'004.32***	***2'594.78***	***2'907.88***	***3'184.33***	***3'590.11***	***4'032.69***	***4'469.08***	***4'927.57***
% margin	36.60%	-8.43%	-13.43%	14.69%	39.47%	43.56%	44.59%	45.06%	46.17%	47.17%	47.85%	48.39%
Income Tax Expense	435.21	-57.57	-73.90	115.50	515.11	666.86	747.33	818.37	922.66	1'036.40	1'148.55	1'266.38
NOPLAT	***1'258.22***	***-166.43***	***-213.64***	***333.90***	***1'489.21***	***1'927.92***	***2'160.56***	***2'365.96***	***2'667.45***	***2'996.29***	***3'320.53***	***3'661.18***
%margin	27.19%	-6.26%	-9.98%	10.92%	29.32%	32.37%	33.13%	33.48%	34.30%	35.05%	35.55%	35.95%
					346%	29%	12%	10%	13%	12%	11%	10%
NOPLAT	1'258.22	-166.43	-213.64	333.90	1'489.21	1'927.92	2'160.56	2'365.96	2'667.45	2'996.29	3'320.53	3'661.18
DDA	1'358.67	1'749.06	1'708.74	1'674.90	1'874.92	2'033.95	2'179.16	2'334.74	2'501.43	2'680.01	2'871.35	3'076.34
CAPEX	4'587.40	3'046.25	532.97	2'100.00	2'700.00	2'970.00	3'226.57	3'505.30	3'808.10	4'137.07	4'494.45	4'882.71
Δ Net Working Capital		461.72	81.53	-59.36	-42.80	-46.42	-50.36	-54.62	-59.25	-64.27	-69.72	-75.63
Free Cash Flow					**707**	**1'038**	**1'164**	**1'250**	**1'420**	**1'604**	**1'767**	**1'930**
Present Value FCF					707	966	1'007	1'006	1'063	1'117	1'145	19'074

Figure 42

Terminal Value assumption:

Continental has the possibility to expand its current portfolio at least for other 15 years and furthermore the undeveloped reserves ratio (54%) will allow the company to consistently increase its production in the next decade especially because the SCOOP and Bakken in Montana have average reserves life of 21 years and 16 years respectively. Therefore, we assume that the company will be able to maintain production at least until 2038 with their current reserves. In this scenario, **the terminal value is equal to 1%** as it represents the residual value of the free-cash-flow of the undeveloped reserves. We have assumed that GDP growth rate is 3.60% (Source: IMF) so the growth rate for terminal value will be adjusted by the increase of Renewable energy at 2.6% CAGR (Source: EIA, US) thus making g = 1%.

Enterprise Value FCF (MM)	**26'085.38**
Terminal Value = FCFn * (1+g)/ (wacc-g)	29'714.69
Wacc	7.50%
Renewable Increase CAGR from 2030 to EIA	2.60%
g	1.00%
Market Value of Debt (MM)	6'420.00
Number of Share(MM)	376

Equity Value	19'665
Share Price	**$ 52.30**

Figure 43

The Stock Price in Neutral growth scenario has a fair value of $52.30.

Conclusion: After the drop of the WTI oil price in the last month from $75.00 to $55.00 the share price of CLR is currently traded at $45.30 and therefore, we suggest buying CLR stock as it represents the right time to entry with an **upside return of 15.45%.**

High Growth Scenario

Revenue Assumptions:

1. **Escalating Oil and Natural Gas Price**: The revenues are based on an escalating oil & Gas price based on the estimates of the Canada Energy Board and EIA from 2018 to 2025. From 2019 to 2020 we have assumed higher commodity prices than Canada Energy Board and EIA estimates and starting 2021 we have assumed the same price as estimated by Canada Energy Board. Rest everything remains the same as in neutral growth scenario.
    a. the weighted average price of oil price per barrel from 2018 to 2025 is considered to be $74.20
    b. the weighted average price of Natural Gas (MCFD) from 2018 to 2025 is considered to be $4.19 or $24.23 per Boe

Revenue Assumptions								
	2018	2019	2020	2021	2022	2023	2024	2025
Weighted Average Price Natural Gas Liquids (per barrel) project as per EIA	25.71	24.20	25.15	24.59	24.05	23.98	23.36	22.79
Canada Energy Board Oil Price Estimation WTI & Analyst Estimate	63.00	75.00	80.00	71.30	73.50	75.30	77.00	78.50
Gas/Oil	43%	44%	44%	45%	45%	46%	46%	47%
Gas Boe Production Boed	130'260	146'610	163'347	177'457	192'787	209'441	227'534	247'190
Oil Production Boed	169'740	187'636	207'390	223'477	240'776	259'373	279'362	300'842
Production Boed	300'000	334'247	372'403	404'573	439'523	477'491	518'740	563'551
Rate of increase in Production (8.64% CAGR)		11.42%	11.42%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 44

2. **Increased production from Continental Resources**: Historically, when prices were above $75.00 per barrel, CLR had a production growth rate of 8.64% CAGR. Therefore, we have assumed that CLR will take full advantage of the favourable prices and increase its production at this rate. However, in 2019 and 2020, CLR will increase its production at 11.42% instead of 10.00% compared the neutral scenario as we presume that the higher price will incentivize higher production. The assumption of 11.42% is based on historical analysis of increase in production in high oil price scenario from 2011-2013.

Cost of revenues assumptions:

1. **Decreasing Operating Cost per Barrel**: In contrast to the neutral growth scenario, we expect the operating cost per barrel to go down by 5.02% CAGR in the high growth scenario. We assume the 5.02% rate because this was the rate of reduction in operating cost per barrel during high price scenario from 2011-2013.

Cost of Revenue Assumptions	2018	2019	2020	2021	2022	2023	2024	2025
Operating Cost per Barrel -5.02% CAGR	3.34	3.17	3.01	2.86	2.72	2.58	2.45	2.33
Total Production Carbon Taxes ($MM)	414.13	541.22	662.20	676.29	775.02	887.41	1'009.78	1'146.62
Production Carbon Taxes Rate increases at 4.15%	8.08%	8.42%	8.76%	9.13%	9.51%	9.90%	10.31%	10.74%
Production Taxes (8.08% of net sales of oil and gas price) per barrel	3.91	4.36	4.86	5.28	5.73	6.23	6.77	7.35
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
Rate of increase in Production		11.42%	11.42%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 45

2. **Production Taxes:** Assumed to be 8.08% of net sales of oil and gas in contrast to 8% in neutral growth scenario because the production also went up by 1% for 2018 in the high growth scenario. The production is assumed to increase in high growth scenario to CLR's claims for the average daily production to be on the upper limit of 300,000 BOED in 2018.
3. **Inflation and rise in costs**: The cost of revenue will increase because of **US inflation rate of 2.4%** (Source IMF) so the costs will grow at the same rate as inflation.

Capex, DD&A:

1. **DD&A:** We assume that the company will decrease its **DD&A per BOE as the rate of the last five years was -1.38% CAGR** as in the first scenario.
2. **Capex will increase at the same of production:** As in the first scenario, we assumed that CLR will increase its capital expenditure at the same rate of its production.
3. **Inflation and rise in costs:** The cost of revenue will increase because of US inflation rate of 2.4% (Source IMF) so the costs will grow at the same rate as inflation.

Capex & DD&A	2018	2019	2020	2021	2022	2023	2024	2025
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
DD&A per BOE	17.15	16.91	16.68	16.45	16.22	16.00	15.78	15.56
DD&A Rate (CAGR last 5 years depreciation)	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%
DD&A + rate of increase of production 2019-2020	1'923	2'354	2'587	2'702	2'665	2'855	3'059	3'278
Capex $MM (rate of production)	2'700	3'008	3'352	3'641	3'956	4'297	4'669	5'072
Capex increase by year	600.00	308.22	343.41	289.53	314.54	341.72	371.24	403.31

Figure 46

Non-operating expense assumption:

1. **G&A will increase because higher employee compensation as in the first scenario.**
2. **Other Operating Expenses are assumed to decrease at 15%:** The assumption is based on the fact that CLR will eventually have zero impairment. Therefore, the impairment charges will decrease at 15% CAGR starting 2019.

Non Operating Expenses	2018	2019	2020	2021	2022	2023	2024	2025
G&A/BOE -2.6% CAGR	1.61	1.57	1.53	1.49	1.45	1.41	1.37	1.34
G&A rate increase because employee compensation (Based on Historical Analysis)	13.21%	11.42%	11.42%	8.64%	8.64%	8.64%	8.64%	8.64%
G&A cost	199.58	213.15	231.31	238.66	252.53	267.22	282.75	299.19
Other Operating Expenses (Impairment -15% CAGR)	233.54	198.5	168.7	143.4	121.9	103.6	88.1	74.9
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%

Figure 47

Net Working Capital assumption:

1. **Net Working Capital is correlated at the same rate of production.**

Net Working Capital Assumptions	2018	2019	2020	2021	2022	2023	2024	2025
Net Working Capital	-42.8	-47.68	-53.12	-59.19	-65.94	-73.47	-81.86	-91.20
Rate of increase in Production		11.42%	11.42%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 48

We assume to use the same WACC and Terminal value assumptions to be the same as in the first scenario.

DCF Analysis:

In Millions of USD except Per Share	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018 E	FY 2019 E	FY 2020 E	FY 2021 E	FY 2022 E	FY 2023 E	FY 2024 E	FY 2025 E
Revenue	4'627.21	2'658.64	2'140.96	3'058.74	5'125.40	6'431.38	7'555.43	7'408.73	8'152.02	8'962.26	9'791.74	10'675.66
Cost of revenues	724.10	566.87	443.06	549.37	813.20	940.88	1'095.39	1'230.58	1'388.16	1'572.10	1'787.08	2'038.62
DDA	1'358.67	1'749.06	1'708.74	1'674.90	1'923.00	2'354.15	2'586.70	2'702.30	2'665.01	2'855.27	3'059.12	3'277.52
Gross profit	***2'544.44***	***342.71***	***-10.85***	***834.46***	***2'389.21***	***3'136.35***	***3'873.34***	***3'475.84***	***4'098.85***	***4'534.89***	***4'945.54***	***5'359.51***
% margin	54.99%	12.89%	-0.51%	27.28%	46.61%	48.77%	51.27%	46.92%	50.28%	50.60%	50.51%	50.20%
G&A	184.66	189.85	169.58	191.71	199.58	213.15	231.31	238.66	252.53	267.22	282.75	299.19
Non Operating Expenses	666.36	376.86	107.10	193.36	233.54	198.51	168.73	143.42	121.91	103.62	88.08	74.87
EBIT	***1'693.43***	***-224.00***	***-287.53***	***449.40***	***1'956.08***	***2'724.68***	***3'473.30***	***3'093.76***	***3'724.41***	***4'164.05***	***4'574.71***	***4'985.45***
% margin	*36.60%*	*-8.43%*	*-13.43%*	*14.69%*	*38.16%*	*42.37%*	*45.97%*	*41.76%*	*45.69%*	*46.46%*	*46.72%*	*46.70%*
Income Tax Expense	435.21	-57.57	-73.90	115.50	502.71	700.24	892.64	795.10	957.17	1'070.16	1'175.70	1'281.26
NOPLAT	***1'258.22***	***-166.43***	***-213.64***	***333.90***	***1'453.37***	***2'024.44***	***2'580.66***	***2'298.67***	***2'767.23***	***3'093.89***	***3'399.01***	***3'704.19***
%margin	*27.19%*	*-6.26%*	*-9.98%*	*10.92%*	*28.36%*	*31.48%*	*34.16%*	*31.03%*	*33.95%*	*34.52%*	*34.71%*	*34.70%*
NOPLAT	1'258.22	-166.43	-213.64	333.90	1'453.37	2'024.44	2'580.66	2'298.67	2'767.23	3'093.89	3'399.01	3'704.19
DDA	1'358.67	1'749.06	1'708.74	1'674.90	1'923.00	2'354.15	2'586.70	2'702.30	2'665.01	2'855.27	3'059.12	3'277.52
CAPEX	4'587.40	3'046.25	532.97	2'100.00	2'700.00	3'008.22	3'351.63	3'641.16	3'955.70	4'297.42	4'668.66	5'071.96
Δ Net Working Capital		461.72	81.53	-59.36	-42.80	-47.68	-53.12	-59.19	-65.94	-73.47	-81.86	-91.20
Free Cash Flow					**719**	**1'418**	**1'869**	**1'419**	**1'542**	**1'725**	**1'871**	**2'001**
Present Value FCF					**719**	**1'319**	**1'617**	**1'142**	**1'155**	**1'202**	**1'213**	**19'771**

Figure 49

Enterprise Value FCF (MM)	**28'137.57**
Terminal Value = FCFn * (1+g)/ (wacc-g)	30'799.46
Wacc	7.50%
Renewable Increase CAGR from 2030 to 2050 (assumptions)	2.60%
g	1.00%
Market Value of Debt (MM)	6'420.00
Number of Share(MM)	376

Equity Value	21'718
Share Price	**$ 57.76**

Figure 50

The Stock Price in High growth scenario has a fair value of $57.76.

Conclusion: **In high growth scenario, the upside is 27.50%.**

Low Growth Scenario

Revenue Assumptions:

1. **Escalating Oil and Natural Gas Price**: The revenues are based on lower oil & Gas price than the estimates of the Canada Energy Board and EIA from 2018 to 2025. From 2019 to 2020 we have assumed particularly lower commodity prices than Canada Energy Board and EIA estimates and starting 2021 we have assumed the same price as estimated by Canada Energy Board. Rest everything remains the same as in neutral growth scenario.
    a. the weighted average price of oil price per barrel from 2018 to 2025 is considered to be $68.58
    b. the weighted average price of Natural Gas (MCFD) from 2018 to 2025 is considered to be $4.19 or $24.23 per Boe
2. **Increased production from Continental Resources**: We have assumed the 9.81% increase in production during 2019 factoring in the Spring and Sycamore, with no increase from Bakken. However due to assumed stalled oil prices at $55 we are assuming that CLR will bring down the production to 3.07% in 2020, and then starting 2021, because of normalized oil prices, the increase in production also normalises as in neutral growth scenario. 3.07% increase in production assumption is based on historical increase of production between 2014-2016 when the weighted average annual oil price was between $40-$60.

Revenue Assumptions								
	2018	2019	2020	2021	2022	2023	2024	2025
Weighted Average Price Natural Gas Liquids (per barrel) project as per EIA	25.71	24.20	25.15	24.59	24.05	23.98	23.36	22.79
Canada Energy Board Oil Price Estimation WTI & Analyst Estimate	63.00	55.00	55.00	71.30	73.50	75.30	77.00	78.50
Gas/Oil	43%	44%	44%	45%	45%	46%	46%	47%
Gas Boe Production Boed	129'066	143'170	147'572	160'320	174'170	189'216	205'561	223'319
Oil Production Boed	168'184	183'233	187'362	201'896	217'524	234'325	252'384	271'790
Production Boed	297'250	326'403	336'440	365'503	397'078	431'380	468'645	509'129
Rate of increase in Production (-1.09% CAGR historical Cagr from 2015 to 2016)		9.81%	3.07%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 51

Cost of revenues assumptions:

1. **Decreasing Operating Cost per Barrel**: We assume the reduction in operating cost at a lower rate than the neutral growth i.e. 2.50% (low growth scenario) instead of 2.76% (neutral scenario).
2. **Production Taxes:** is considered to be 8.0% of net sales of oil and gas as it was in the last quarter of Continental. We assume production taxes to be consistent at 8.0% of the revenues as the first scenario
3. **Inflation and rise in costs**: The cost of revenue will increase because of US inflation rate of 2.4% (Source IMF) so the costs will grow at the same rate as inflation.

Cost of Revenue Assumptions								
	2018	2019	2020	2021	2022	2023	2024	2025
Operating Cost per Barrel -2.50% CAGR	3.34	3.26	3.18	3.10	3.02	2.94	2.87	2.80
Production Carbon Taxes Rate increases at 4.15%	8.00%	8.33%	8.68%	9.04%	9.41%	9.80%	10.21%	10.63%
Production Taxes (8.0% of net sales of oil and gas price) per barrel	3.84	3.89	4.19	5.71	6.55	7.50	8.53	9.69
Production Carbon Taxes (8% of net sales of oil and gas price) (MM/$)	406.27	411.84	443.97	604.93	693.24	793.78	903.23	1'025.64
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
Rate of increase in Production		9.81%	3.07%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 52

Capex, DD&A:

1. **DD&A:** We assume that the company will decrease its DD&A per BOE as the rate of the last five years was -1.38% CAGR as in the first scenario.
2. **Capex will increase at the same of production:** As the other two scenarios, we assumed that CLR will increase its capital expenditure at the same rate of its production.
3. **Inflation and rise in costs:** The cost of revenue will increase because of US inflation rate of 2.4% (Source IMF) so the costs will grow at the same rate as inflation.

Capex & DD&A								
	2018	2019	2020	2021	2022	2023	2024	2025
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
DD&A per BOE	17.15	16.91	16.68	16.45	16.22	16.00	15.78	15.56
DD&A Rate (CAGR last 5 years depreciation)	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%	1.38%
DD&A + rate of increase of production 2019-2020	1'905	2'063	2'162	2'441	2'408	2'580	2'764	2'961
Capex $MM (rate of production)	2'700	2'783	2'869	2'957	3'212	3'490	3'791	4'119
Capex increase by year	600.00	83.02	85.58	88.21	255.43	277.49	301.46	327.50

Figure 53

Non-operating expense assumption:

1. **G&A will increase because higher employee compensation as the other two scenarios scenario.**
2. **Other Operating Expenses is the same as in the neutral growth scenario.**

Non Operating Expenses								
	2018	2019	2020	2021	2022	2023	2024	2025
G&A cost per Boe	1.61	1.57	1.53	1.49	1.45	1.41	1.37	1.34
G&A rate increase because employee compensation (Based on Historical Analysis)	13.21%	3.07%	3.07%	8.64%	8.64%	8.64%	8.64%	8.64%
G&A cost	197.75	192.57	193.33	215.61	228.15	241.41	255.45	270.30
Other Operating Expenses (Impairment conservative approach with inflation)	233.54	239.15	244.89	250.76	256.78	262.95	269.26	275.72
US Inflation rate (IMF)	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%

Figure 54

Net Working Capital assumption:

1. **Net Working Capital is correlated at the same rate of production.**

Net Working Capital Assumptions								
	2018	2019	2020	2021	2022	2023	2024	2025
Net Working Capital	-42.8	-46.99	-51.60	-56.66	-62.22	-68.32	-75.02	-82.38
Rate of increase in Production		9.81%	3.07%	8.64%	8.64%	8.64%	8.64%	8.64%

Figure 55

We assume to use the same WACC and Terminal value equal to be equal to the first scenario.

DCF Analysis:

In Millions of USD except Per Share	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018 E	FY 2019 E	FY 2020 E	FY 2021 E	FY 2022 E	FY 2023 E	FY 2024 E	FY 2025 E
Revenue	4'627.21	2'658.64	2'140.96	3'058.74	5'078.42	4'942.86	5'116.12	6'693.26	7'364.78	8'096.77	8'846.14	9'644.70
Cost of revenues	724.10	566.87	443.06	549.37	778.81	851.51	904.96	1'175.42	1'386.67	1'644.12	1'950.45	2'320.50
DDA	1'358.67	1'749.06	1'708.74	1'674.90	1'905.37	2'063.37	2'161.96	2'441.34	2'407.64	2'579.54	2'763.70	2'961.01
Gross profit	***2'544.44***	***342.71***	***-10.85***	***834.46***	***2'394.24***	***2'027.99***	***2'049.19***	***3'076.50***	***3'570.46***	***3'873.12***	***4'132.00***	***4'363.19***
% margin	54.99%	12.89%	-0.51%	27.28%	47.15%	41.03%	40.05%	45.96%	48.48%	47.84%	46.71%	45.24%
G&A	184.66	189.85	169.58	191.71	197.75	192.57	193.33	215.61	228.15	241.41	255.45	270.30
Non Operating Expenses	666.36	376.86	107.10	193.36	233.54	239.15	244.89	250.76	256.78	262.95	269.26	275.72
EBIT	***1'693.43***	***-224.00***	***-287.53***	***449.40***	***1'962.95***	***1'596.27***	***1'610.98***	***2'610.13***	***3'085.53***	***3'368.76***	***3'607.30***	***3'817.18***
% margin	*36.60%*	*-8.43%*	*-13.43%*	*14.69%*	*38.65%*	*32.29%*	*31.49%*	*39.00%*	*41.90%*	*41.61%*	*40.78%*	*39.58%*
Income Tax Expense	435.21	-57.57	-73.90	115.50	504.48	410.24	414.02	670.80	792.98	865.77	927.08	981.01
NOPLAT	***1'258.22***	***-166.43***	***-213.64***	***333.90***	***1'458.47***	***1'186.03***	***1'196.96***	***1'939.32***	***2'292.55***	***2'502.99***	***2'680.22***	***2'836.16***
%margin	*27.19%*	*-6.26%*	*-9.98%*	*10.92%*	*28.72%*	*23.99%*	*23.40%*	*28.97%*	*31.13%*	*30.91%*	*30.30%*	*29.41%*
NOPLAT	1'258.22	-166.43	-213.64	333.90	1'458.47	1'186.03	1'196.96	1'939.32	2'292.55	2'502.99	2'680.22	2'836.16
DDA	1'358.67	1'749.06	1'708.74	1'674.90	1'905.37	2'063.37	2'161.96	2'441.34	2'407.64	2'579.54	2'763.70	2'961.01
CAPEX	4'587.40	3'046.25	532.97	2'100.00	2'700.00	2'783.02	2'868.60	2'956.81	3'212.24	3'489.73	3'791.19	4'118.69
Δ Net Working Capital		461.72	81.53	-59.36	-42.80	-46.99	-51.60	-56.66	-62.22	-68.32	-75.02	-82.38
Free Cash Flow					**707**	**513**	**542**	**1'481**	**1'550**	**1'661**	**1'728**	**1'761**
Present Value FCF					707	478	469	1'192	1'161	1'157	1'120	17'399

Figure 56

Enterprise Value FCF (MM)	**23'681.64**
Terminal Value = FCFn * (1+g)/ (wacc-g)	27'105.62
Wacc	7.50%
Renewable Increase CAGR from 2030 to 2050 (assumptions)	2.60%
g	1.00%
Market Value of Debt (MM)	6'420.00
Number of Share(MM)	376

Equity Value		17'262
Share Price	**$**	**45.91**

Figure 57

The Stock Price in Low growth scenario has a fair value of $45.91.

Conclusion: **There is still an upside of 1.34% even in low growth scenario.**

Valuations Multiples' Analysis

Revenue Assumptions:

P/E 2019		14.26
EPS 2019		4.33
EPS * multiples	$	61.73
Share price	*$*	*61.73*

Figure 58

P/E Valuation: P/E analysis with comparables (with similar market capitalization) in the industry are traded at 14.26x, and therefore **we valued CLR stock at $61.73**. Therefore, multiple analysis shows a clear buy for CRL.

Recommendation: BUY

EBIT 2019		2,594.78
EV/EBIT 2019		12.61
EBIT*Multiples		32,727.49
Market Value		6,420
Equity Value		26,307.49
Share price	*$*	*69.97*

Figure 59

EV/EBITDA Valuation: According to our valuation model, CLR EBIT in 2019 should be equal to $2,594 million. EV/EBITDA of comparables (with similar market capitalization) in the industry are traded at 12.61x and therefore **we valued CLR stock at $69.97**. Again, it's a clear buy.

Recommendation: BUY

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