Bakken Producer Financial Stress

January 2015

Cost & Capital

Executive Summary

- ***Effect of Crude Oil Pricing –*** The recent decline in crude oil pricing is affecting the viability of higher-cost oil extraction for shale plays
- ***Hedging and Price Exposure –*** Producers have varying degrees of exposure to the recent decline based on financial hedges
- ***Covenant Violations –*** Producers funding operations through credit revolvers are at risk of violating covenants with crude oil priced below $50 per bbl.
- ***Future Outlook –*** Most producers are scaling back capital spending and growth to weather the current environment of low pricing—some producers are likely to default on financial obligations and will not be able to generate cash from oil production

Producer Review

Producer	Comments	Risk Assessment
Whiting Petroleum	Low amount of production hedged. Likely to violate lending covenant of 4.0 EBITDAX to Debt ratio	Critical
Emerald Oil	Significant hedges through Q2 2015, but likely to violate lending covenant	Critical
Continental Resources	Monetized 100% of hedge position in Q3 2014 at $90 per bbl. leaving the rest of production exposed.	Moderate
Oasis Petroleum	Significant hedges through 2015, but likely to violate interest coverage of 2.5X covenant on credit revolver	Moderate
Northern Oil & Gas	Significant hedges through 2016 protect credit and capital budget	Low

Producer Financial Benchmark

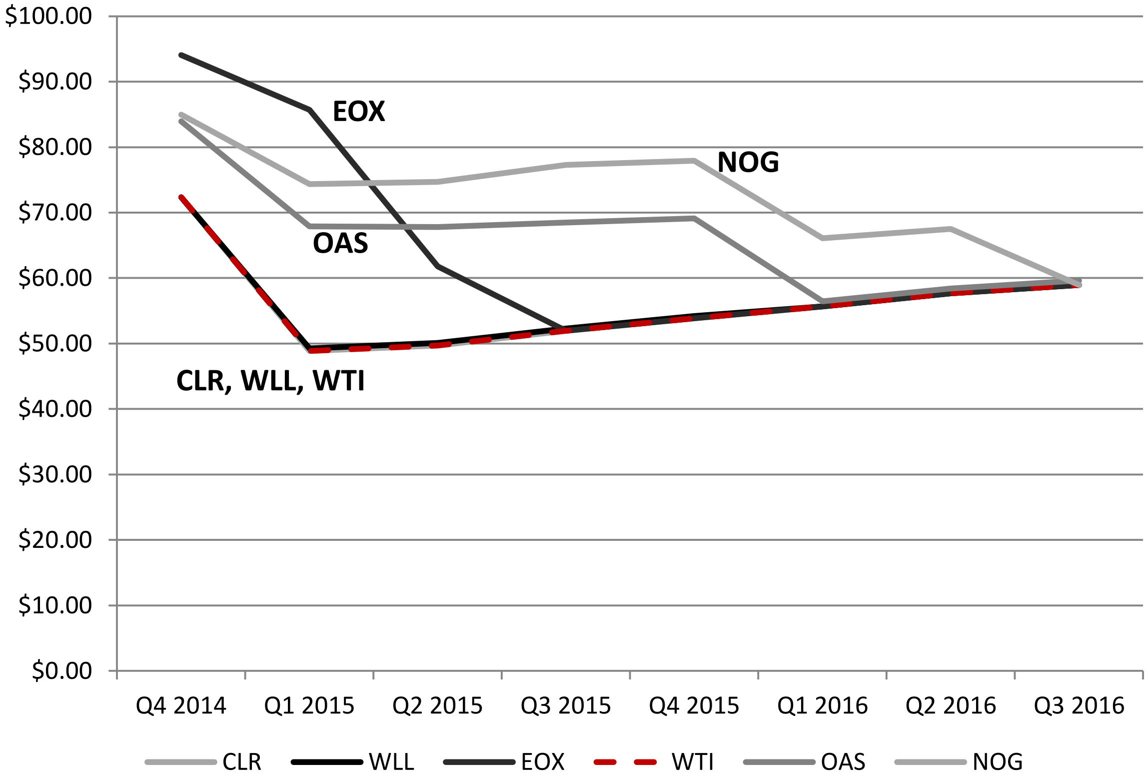
Producers are positioned differently to handle the current WTI environment.

	CLR	WLL	EOX	OAS	NOG
2015 Cash Requirement	($1,806,013,788)	($970,535,673)	($44,277,215)	($382,859,925)	
Requirement as a percent of Cash and Credit	77%	31%	23%	24%	
Average Hedged Revenue per BBL 2015	$51.21	$51.56	$65.33	$68.34	$76.06
Hedge Asset Value percent of Market Cap	0%	2%	36%	25%	49%
WTI Break-even	$45.31	$47.11	$47.23	$45.68	$45.88
Minimum Interest Coverage Ratio 2015	2.63	2.41	3.52	2.48	6.28
Maximum Debt to EBITDA	6.53	5.20	4.70	6.52	3.38
Days of Cash on Hand	118.3	10.6	103.5	64.1	
Estimated Credit Default		Q4 2015	Q4 2015	Q1 2016	

2015 Hedge Profile

Hedge positions improve crude oil selling price as much as $30 above spot.

Hedge Profile (Net $/bbl)



Impact above spot

Producer	per bbl.
CLR	$ 0.00
WLL	$ 0.37
EOX	$ 12.22
OAS	$ 18.32
NOG	$ 30.03

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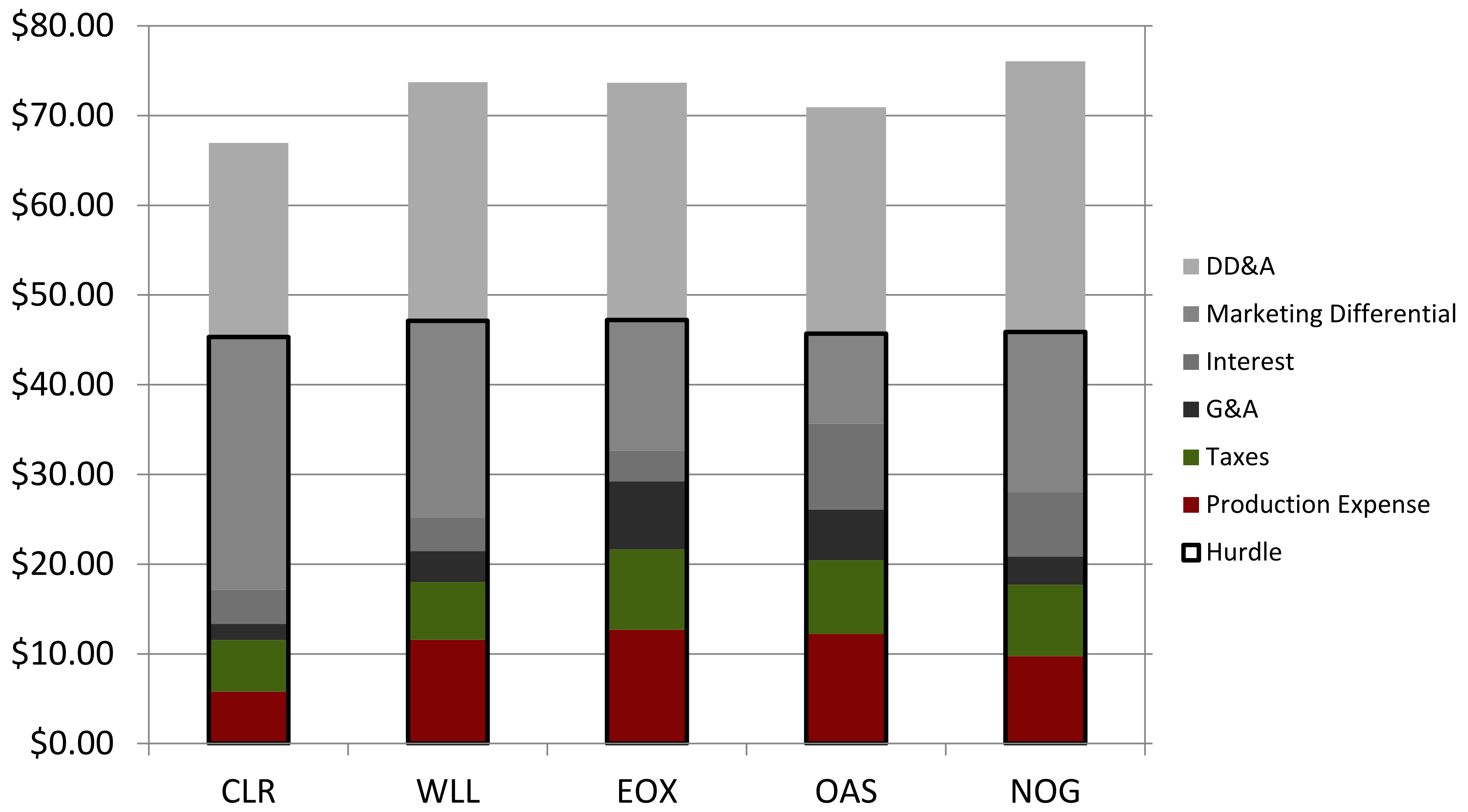
Production Cost Analysis

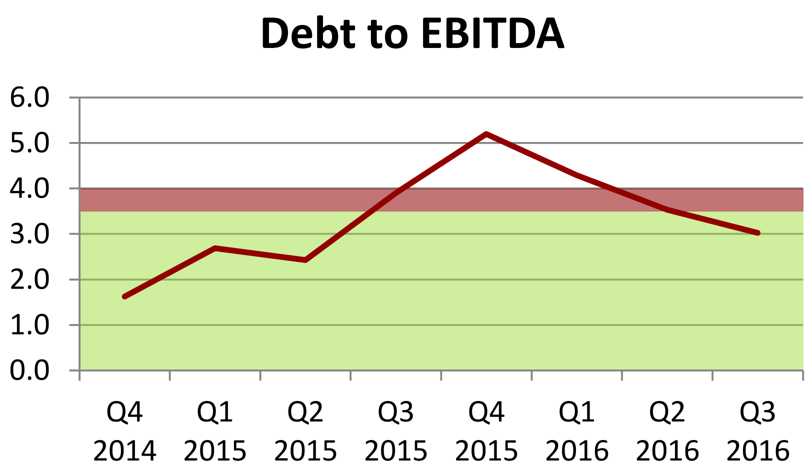
WTI Needs to stay above $45-$47 for Bakken producers to cover costs.



Growth cannot be sustained unless WTI is above $70 per bbl.

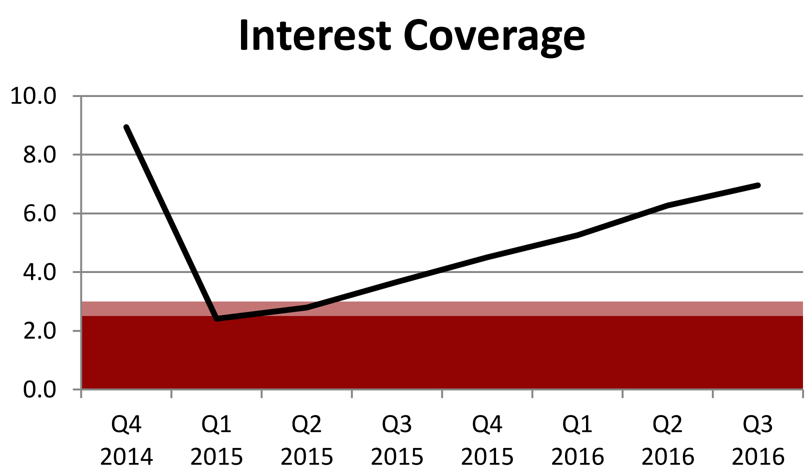
Company Report – Whiting Petroleum (WLL)

Diagnostics



Whiting Petroleum has a credit line covenant not to exceed a Debt to EBITDA ratio of 4.0

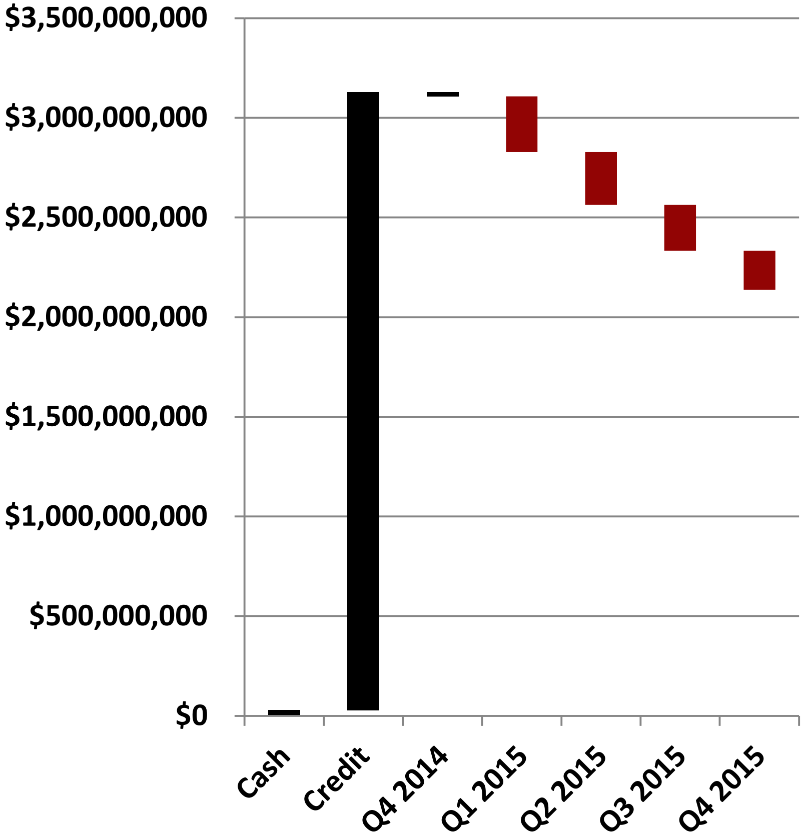
Based on current expenditures, Whiting will violate that covenant in Q4 2015 and could trigger default



Q1 2015 will be challenging for Whiting Petroleum for Interest Coverage. Although not a covenant, low interest coverage is a sign of financial distress

Company Report – Whiting Petroleum (WLL)

Liquidity Report



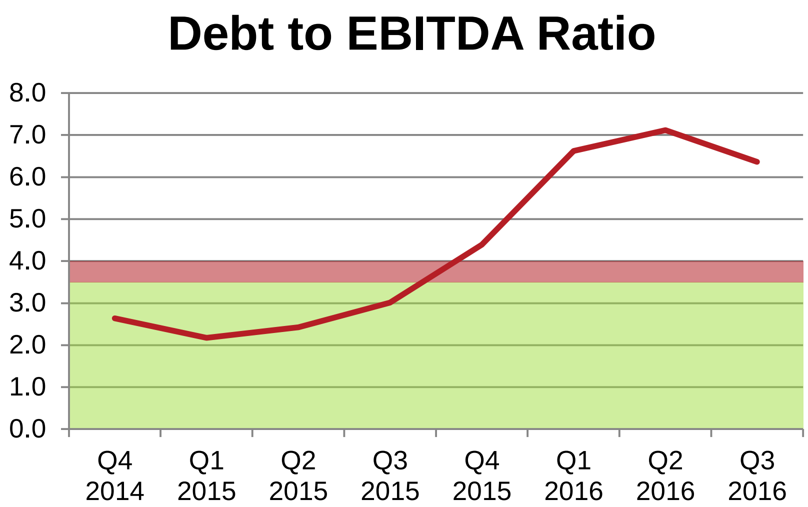
Whiting Petroleum utilizes a mostly untapped credit revolver as the primary source of liquidity

Whiting can maintain a capital plan at 75% of 2014 expenditure by utilizing the revolver

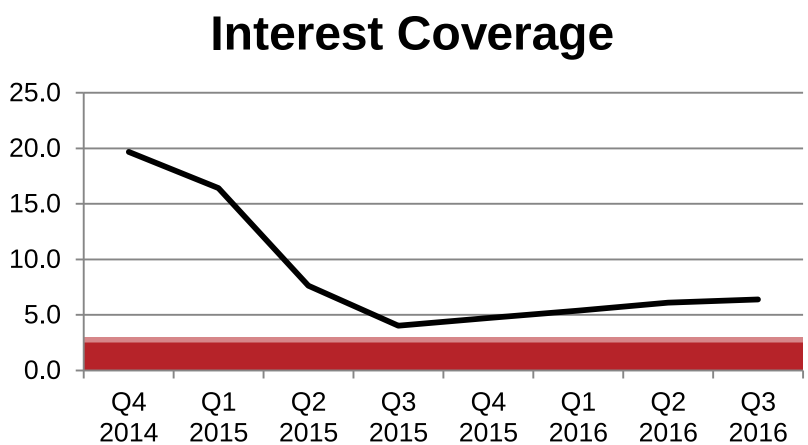
Debt to EBITDA coverage covenants could restrict access to the credit revolver and trigger a default

Company Report – Emerald Oil (EOX)

Diagnostics



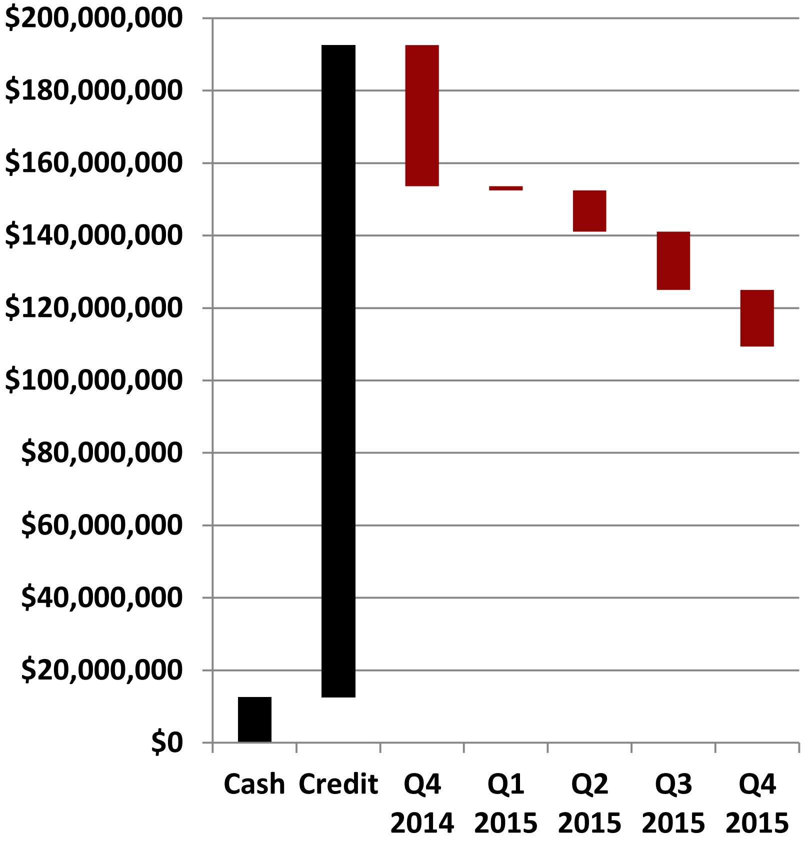
Emerald Oil's credit revolver has a covenant that Debt to EBITDA must remain below 4.0:1.0. At expected crude pricing, Emerald will violate this covenant in Q4 2015.



Although not a credit covenant, Emerald Oil should be able to maintain an interest coverage ratio above 4 even with lower crude prices

Company Report – Emerald Oil (EOX)

Liquidity Report



With the current capital plan to spend $62 - $81 million in 2015, Emerald Oil will require access to their line of credit to operate in 2015.

If Emerald Oil violates the credit covenant of a debt to EBITDA ratio of 4.0, access to the credit line may be suspended

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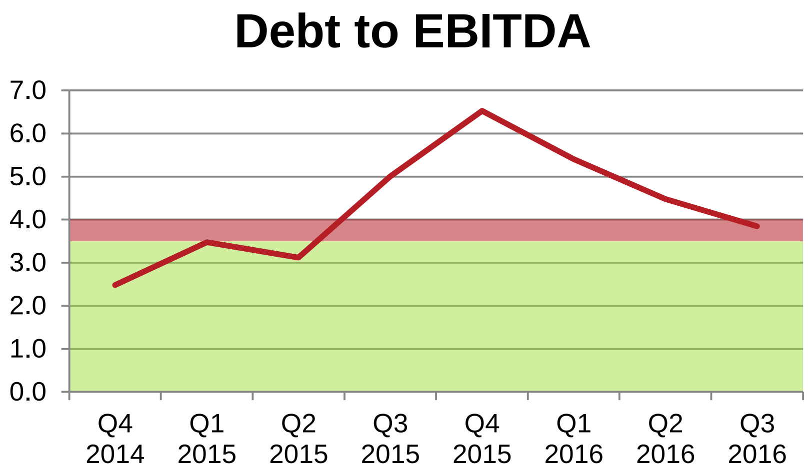
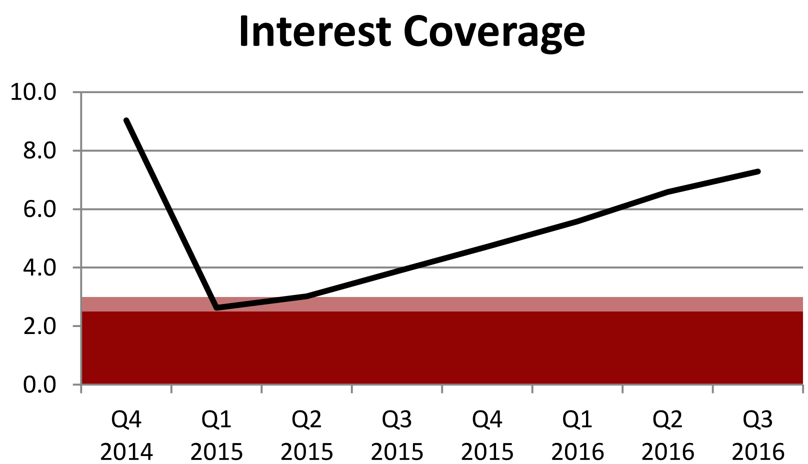
Company Report – Continental Resources (CLR)

Diagnostics



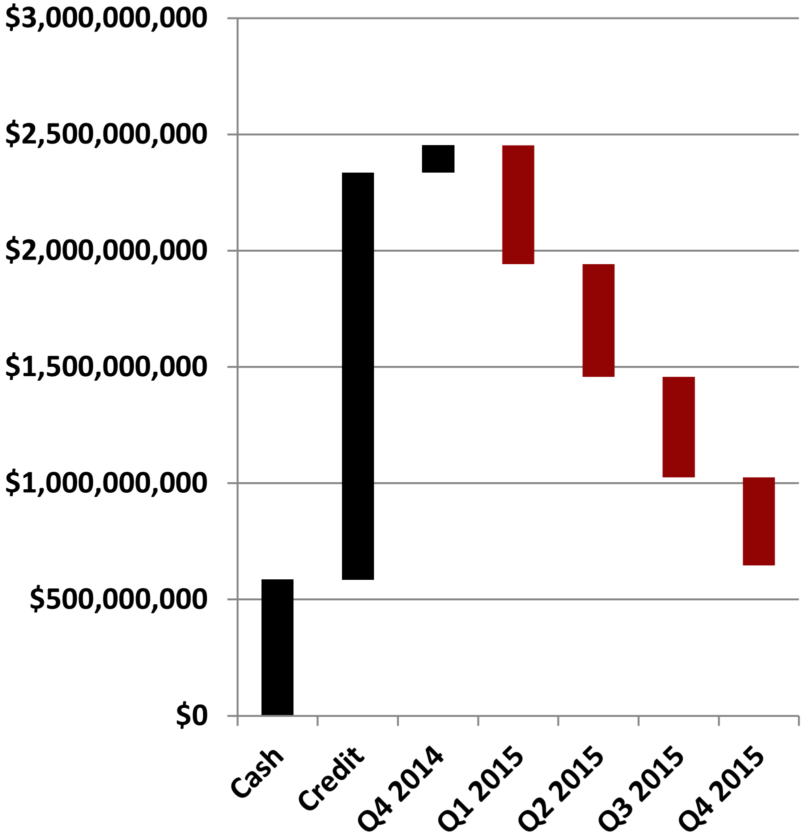
Although not a liquidity covenant, Continental Resources will struggle with a high Debt to EBITDA ratio for much of 2015 and 2016



Q1 2015 will be challenging for Continental Resources for Interest Coverage. Although not a covenant, low interest coverage is a sign of financial distress

Company Report – Continental Resources (CLR)

Liquidity Report

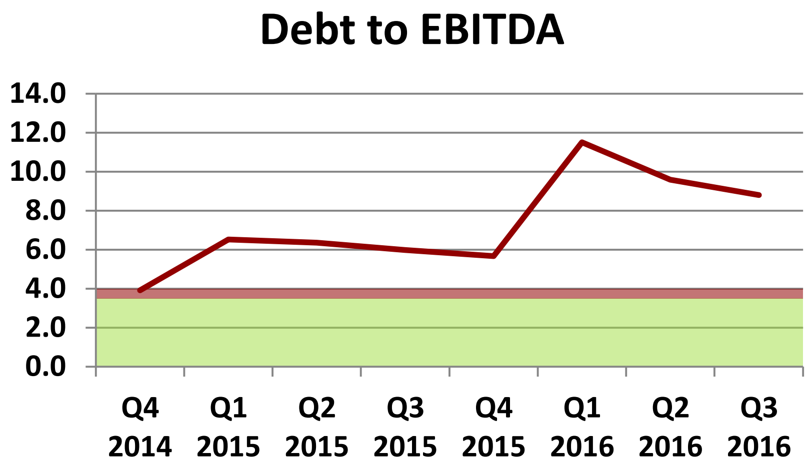


Continental Resources monetized the value of their hedges at the end of Q3 2014 at an average WTI price of $90 per bbl. This generated $433 million in cash for the company.

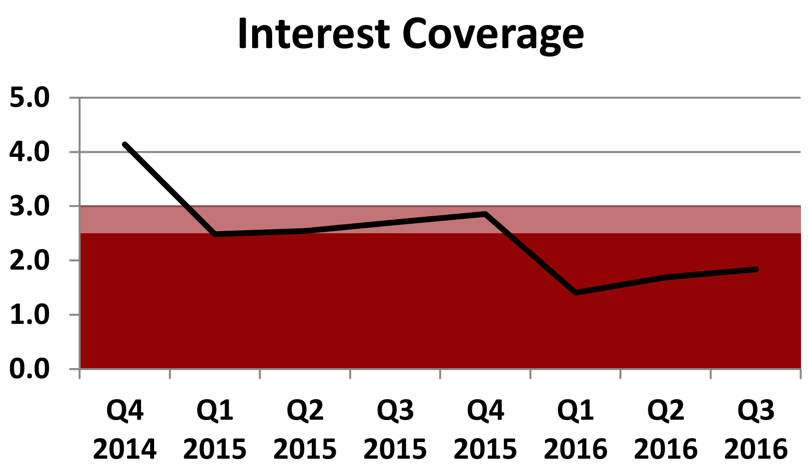
With the current capital plan to spend $2,700,000,000 in 2015, Continental Resources will need to rely heavily on their $1.75 BUSD credit revolver

Company Report – Oasis Petroleum (OAS)

Diagnostics



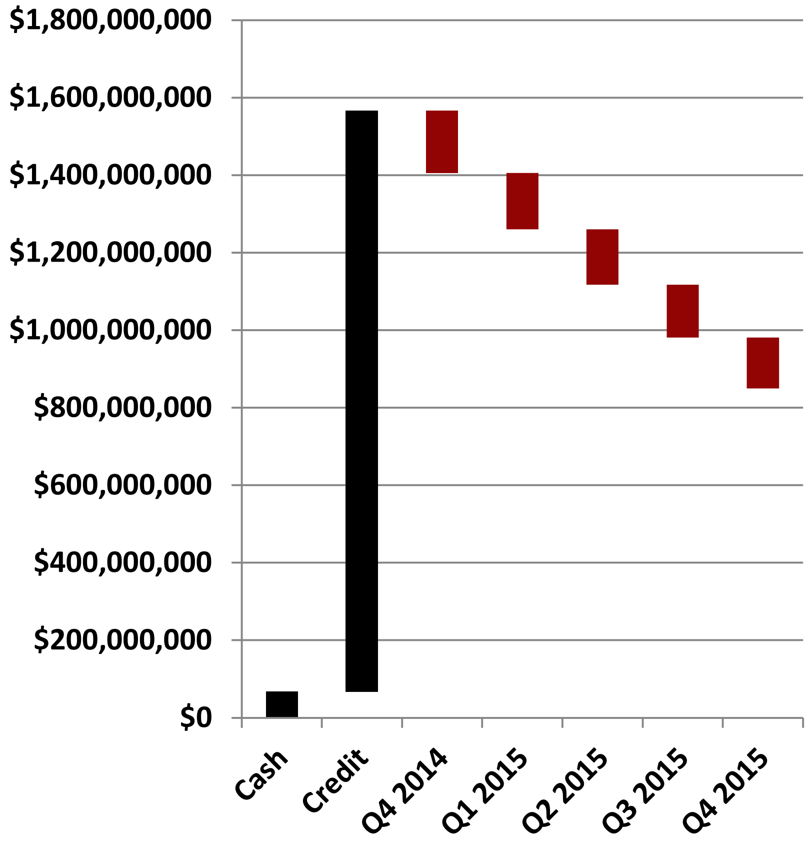
Oasis is highly leveraged with a EBITDA ratio beyond safe ranges



Oasis Petroleum will violate debt covenants in Q1 2016 that could default on the credit revolver

Company Report – Oasis Petroleum (OAS)

Liquidity Report

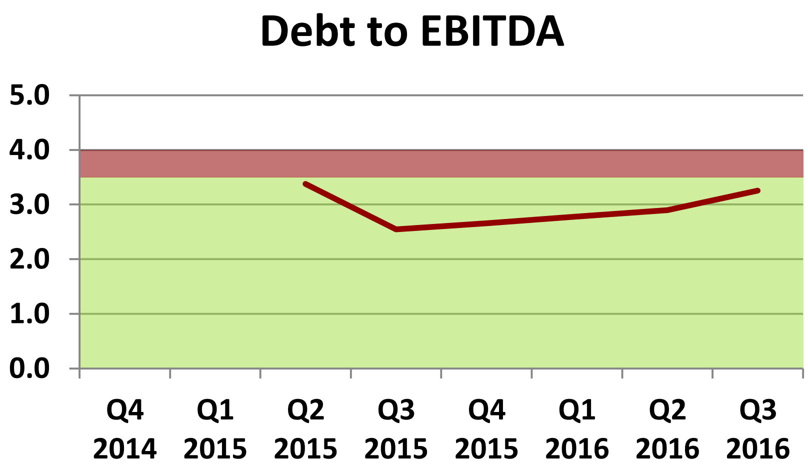


Oasis' primary source of liquidity is cash from operations and their credit revolver

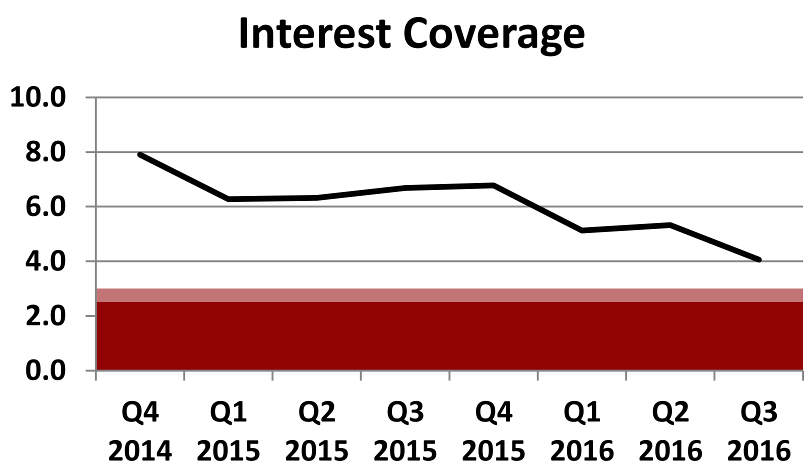
There should be ample cash for operations unless the interest coverage covenant is triggered for default

Company Report – Northern Oil & Gas (NOG)

Diagnostics



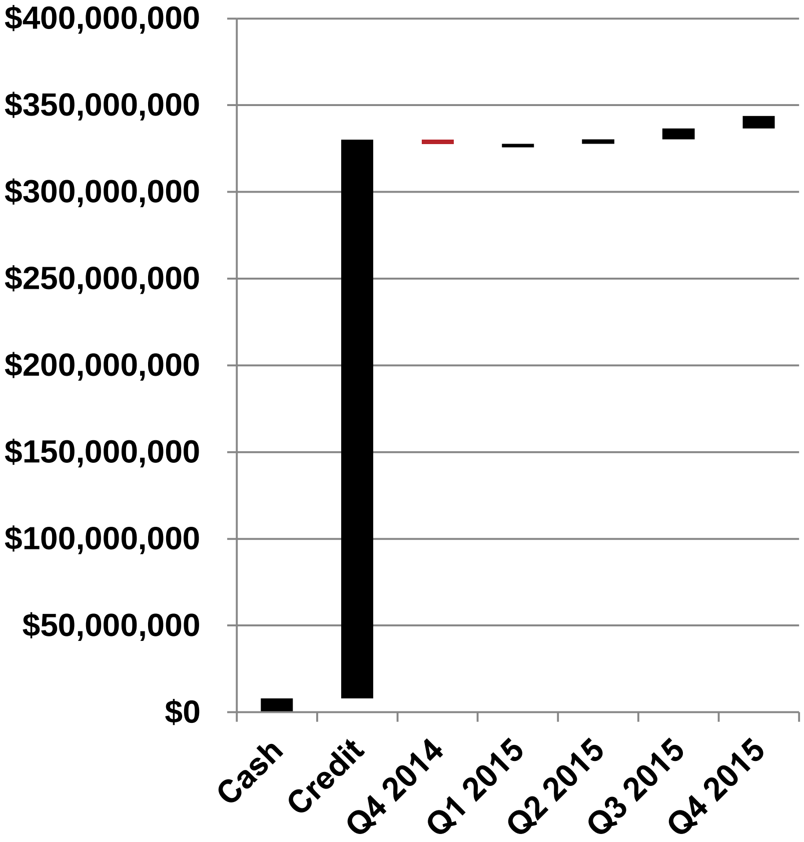
Northern Oil & Gas will maintain a safe debt to EBITDA ratio well into 2016



Northern Oil & Gas won't feel pressure from Interest Coverage until the end of 2016 due to the extent of previous hedged positions

Company Report – Northern Oil & Gas (NOG)

Liquidity Report



With a large portion of volume hedged, Northern Oil & Gas will continue to generate cash from operations while still deploying the capital plan.

For more information contact:

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