

## **IRONHORSE OIL & GAS INC. MANAGEMENT'S DISCUSSION & ANALYSIS**

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*This management's discussion and analysis ("MD&A") for Ironhorse Oil and Gas Inc. ("Ironhorse" or the "Company" or "we" or "our"), dated November 17, 2016, should be read in conjunction with the condensed financial statements for the three and nine months ended September 30, 2016 and September 30, 2015 and the audited financial statements for the years ended December 31, 2015 and December 31, 2014.*

*The interim condensed financial statements have been prepared in accordance with Canadian generally accepted accounting principles ("GAAP") which comprises International Financial Reporting Standards ("IFRS") as applicable for the interim financial statements, including International Accounting Standards ("IAS") 34, "Interim Financial Reporting".*

*This MD&A contains Non-GAAP measures and forward-looking statements. Readers are cautioned that the MD&A should be read in conjunction with Ironhorse's disclosure under the Advisory heading included at the end of this MD&A. Additional information relating to Ironhorse can be found on SEDAR at [www.sedar.com](http://www.sedar.com) or on the Company's website at [www.ihorse.ca](http://www.ihorse.ca).*

### **2016 OVERVIEW**

Ironhorse is engaged in the development and production of petroleum and natural gas reserves in western Canada. Ironhorse's shares are listed on the TSX Venture Exchange under the symbol IOG.

The Pembina Nisku light oil property produced for just 31 days during the first seven months of 2016.

The property was shut-in on January 19, 2016, as a result of low commodity prices. The Company believed that, with the downward pressure on commodity prices, the temporary shut-in of the Pembina production was a prudent decision to preserve the value of Ironhorse's oil and natural gas reserves.

With some improvement in pricing in 2016, as well as an interim lowering of fees at the Minnehik Buck Lake facility, the operator of the Pool restarted production on July 19, 2016 with both wells back on stream by the end of July. Combined sales from the Pool averaged 1,281 boe/d gross (200 boe/d net) over the August and September Q3 2016 months. This production rate was lower than projected due to unexpected downtime in September related to a third party pipeline outage lasting nine days.

With the Pembina wells shut in from mid-January to mid-July, production has been limited to 172 boe/d with operating netbacks of \$137,000 for the current quarter as compared to a netback of \$3,000 and 10 boe/d for the prior quarter ended June 30, 2016. Funds from operations were positive improving \$147,000 or 156% to \$53,000 for Q3 2016 compared to negative funds from operations of \$94,000 for Q2 2016 as a result of the resumption of Pembina production in Q3.

The Company continues to have a positive working capital position which has decreased to \$2.7 million at September 30, 2016 compared with \$2.9 million at December 31, 2015. The Company realized a net loss of \$123,000 for Q3 2016 compared to \$69,000 for Q2 2016. The increased loss for the current quarter is primarily a result of higher depletion costs which were partially reduced by higher operating netbacks reported compared to Q3 2016.

The Company is operator of two Dawson, Alberta suspended oil wells and has funds on deposit with the Alberta Energy Regulator (AER) related to the licensee liability rating program's estimated abandonment liabilities for Dawson. During Q3 2016 the Company commenced decommissioning work related to these wells, incurring \$84,000(net) expenditures for the quarter. The Company anticipates receiving a refund in Q4 2016 of approximately \$192,000 representing a partial refund of the security deposit previously paid to the AER.

## OUTLOOK

During October 2016, combined production from the Pool averaged 1,446 boe/d gross (226 boe/d net). Total Q4 2016 production is estimated to average in the range of 175 boe/d to 195 boe/d as the operator manages reservoir performance and optimizes the Pool production and water injection requirements. No third party facility downtime or pipeline restrictions are currently anticipated.

### Lawsuit – Statement of Claim Filed and Counter claim

On February 23, 2016, the Company and Grizzly Resources Ltd. (“GRL”), the operator of the Pembina wells, jointly filed a Statement of Claim in the Court of Queen’s Bench of Alberta against Sinopec. The Company and GRL are seeking damages against Sinopec for misrepresentation and breach of contract.

On April 15 2016 Sinopec filed a Statement of Defense, as well as a Counterclaim, in response to the Company’s and GRL’s Statement of Claim. On May 24, 2016 Ironhorse and GRL filed a Statement of Defense to the Sinopec Counterclaim.

### UNSOLICITED TAKE-OVER BID

On November 4, 2015, an unsolicited all cash take-over bid (the “Offer”) was commenced by 1927297 Alberta Ltd. (the “Offeror”), a corporation wholly-owned by Timmerman Trust, to acquire the outstanding common shares of Ironhorse for \$0.17 per share which expired on February 5, 2016. The Offeror did not take up any shares deposited under the Offer. The Company has incurred approximately \$325,000 as at October 31, 2016 in total general and administrative costs related to the take-over-bid.

### SELECTED QUARTERLY INFORMATION

	For the three months ended		
	September 30	June 30	September 30
(\$ thousands except per share amounts)	2016	2016	2015
Petroleum and natural gas revenues <sup>(1)</sup>	669	16	941
Funds from operations <sup>(2)</sup>	53	(94)	39
Net loss	(123)	(69)	(2,850)
Net loss per share-basic & diluted	-	-	(0.10)
Capital expenditures <sup>(3)</sup>	-	-	21
Total assets	14,100	14,010	17,276
Net working capital	2,660	2,696	3,059

(1) Petroleum and natural gas revenues are before royalty expense.

(2) Funds from operations and net debt are non-GAAP measures as defined in the Advisory section of the MD&A.

(3) Capital expenditures are before acquisitions and dispositions.

## FINANCIAL AND OPERATING REVIEW

### Production

	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Light oil & NGL (bbl/d)	145	189	(23)	64	152	(58)
Natural gas (mcf/d)	162	162	-	118	189	(38)
Total (boe/d)	172	216	(20)	84	184	(54)
Volumes by product						
Oil & NGL	84%	88%	(5)	76%	83%	(8)
Natural gas	16%	12%	33	24%	17%	41

For the three months and nine months ended September 30, 2016 Ironhorse's average daily light oil and natural gas liquids ("NGL") sales volumes were 145 bbls/d and 64 bbls/d, respectively. This represents a decrease of 23% and 58% compared to an average sales volume of 189 bbls/d and 152 bbls/d for the same periods of 2015.

The Pembina Nisku light oil property produced for just 31 days during the first seven months of 2016 as the property was shut-in on January 19, 2016, as a result of low commodity prices, and subsequently restarted on July 19, 2016 by the Operator of the Pool, with both the 09-05 and 14-05 wells brought back on stream. During the August and September months of Q3 2016, combined sales from the Pool averaged 1,280 boe/d gross (200 boe/d net) and was impacted by nine days of unexpected downtime in September due to a third party pipeline outage downstream.

The 2016 shut-in resulted in lower production compared to 2015 which produced at restricted rates in Q1 and Q3 due to facility upgrades at the 13-2 battery, a facility turnaround at Minnehik Buck Lake and pipeline curtailments imposed by Trans Canada Pipelines.

Natural gas sales volumes for the three and nine months ended September 30, 2016, were 162 mcf/d and 118 mcf/d respectively representing a decrease of 0% and 38% compared to an average sales volume of 162 mcf/d and 189 mcf/d for the same periods of 2015. This three and nine month to date variance is due to the Company's decreased Pembina production as discussed above, along with reduced production from the natural gas well at Balsam, Alberta. 2016 gas production is comprised of 50% from Pembina and 50% from Balsam.

### Commodity Prices

	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Average benchmark prices:						
WTI (US\$/bbl)	44.94	46.43	(3)	40.84	51.00	(20)
Canadian Light Sweet (\$/bbl)	54.19	55.09	(2)	49.44	59.09	(16)
AECO natural gas (\$/mcf) <sup>(1)</sup>	2.36	2.91	(19)	1.77	2.78	(36)
Realized prices:						
Light oil & NGL (\$/bbl)	47.85	51.80	(8)	44.98	55.74	(19)
Natural gas (\$/mcf)	2.17	2.70	(20)	1.94	2.56	(24)
Total (\$/boe)	42.38	47.37	(11)	37.09	48.84	(24)

(1) Represents the AECO Monthly (7a) Index

## Revenues

(\$ thousands)	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Light oil & NGL	<b>637</b>	901	(29)	<b>784</b>	2,319	(66)
Natural gas	<b>32</b>	40	(20)	<b>63</b>	132	(52)
Total	<b>669</b>	941	(29)	<b>847</b>	2,451	(65)

## Revenues and Commodity Prices

The Company's realized light oil and NGL price/bbl for the three and nine months ended September 30, 2016, was 8% and 19% lower respectively compared to the same periods in 2015 and on par with the benchmark Canadian Light Sweet price percentage decreases. The Canadian Light Sweet oil benchmark price remained flat averaging \$54.19/bbl for Q3 2016 compared to the Q2 2016 average of \$55.01/bbl.

The Company's realized natural gas price/mcf for the three months and nine months ended September 30, 2016, was 20% and 24% lower respectively compared to the same periods in 2015. The benchmark natural gas price decreased 19% and 36% for the three months and nine months ended September 30, 2016 compared to the same periods in 2015. The Company's realized natural gas and oil prices vary from benchmark prices due to transportation and location differentials.

Total sales revenue for the three months ended September 30, 2016 was \$669,000 a 29% decrease from the \$941,000 for the three months ended September 30, 2015. Revenues for the nine months ended September 30, 2016 decreased by 65% from \$2,451,000 to \$847,000. This decrease in sales revenue for both the three months and nine months ended September 30, 2016 was a result of decreased sales volumes for both oil and natural gas, mainly attributable to the shut-in of the Pembina production from January to July 2016, and the downward trending commodity prices since late 2014.

Q3 2016 oil and NGL benchmark pricing remained flat compared to Q2 2016, however realized revenues on a boe basis increased 119% to \$37.09/boe during the quarter compared to \$16.91/boe for Q2 2016. This quarter over quarter significant increase is a result of having a 90% gas sales production weighting as benchmark gas prices trended 23% lower during the prior quarter and had a higher impact on revenues compared to Q3 2016 which had a 16% gas weighting.

## Royalties

(\$ thousands except per boe)	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Oil & NGL	<b>276</b>	397	(30)	<b>341</b>	845	(60)
Natural gas	<b>(5)</b>	7	(171)	<b>(55)</b>	31	(277)
Royalties	<b>271</b>	404	(33)	<b>286</b>	876	(67)
Royalties %	<b>41</b>	43	(5)	<b>34</b>	36	(6)
Royalties per boe	<b>17.16</b>	20.34	(16)	<b>12.55</b>	17.45	(28)

Royalties represent charges against production or revenue by governments and mineral right owners. From period to period royalties vary due to changes in the production mix, production rates and sales prices, the components of which are subject to different royalty rates.

For the three months ended September 30, 2016, royalties decreased 33% from \$404,000 in the comparable period in 2015 to \$271,000. The recovery in 2016 is related to \$59,000 of gas cost allowance ("GCA") and custom processing fee credits received related to natural gas crown royalties previously paid. Royalties as a percentage

of revenues decreased to 41% for the three months ended September 30, 2016 compared to 43% in the comparable period in 2015.

Royalties as a percentage of revenues decreased 6% to 34% for the nine months ended September 30, 2016 compared to the same period in 2015. This 2016 decrease in royalties incurred and on a percentage basis is due to the GCA related adjustments received as discussed above.

### Operating Expenses

(\$ thousands except per boe)	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Operating expenses	261	417	(37)	406	919	(56)
Operating expenses (\$/boe)	16.56	20.99	(21)	17.78	18.31	(3)

Operating expenses were \$261,000 or \$16.56/boe for the three months ended September 30, 2016 compared to \$417,000 or \$20.99/boe for the comparable period in 2015 representing a decrease of 37% and 21% respectively. For the nine months ended September 30, 2016 operating costs decreased by 56% to \$406,000 or \$17.78/boe compared to \$919,000 or \$18.31/boe compared to the same period in 2015.

The decrease in 2016 operating expenses incurred is due to 54% lower production levels in 2016 and reduced associated blend gas costs as compared to 2015 as facility enhancements to reduce blend gas requirements was completed in late September 2015 bringing on stream a secondary source of blend gas downstream of the Sinopec 13-2 battery.

### Operating Netbacks

	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Oil & NGL (\$/bbl)	47.85	51.80	(8)	44.98	55.74	(19)
Natural gas (\$/mcf)	2.17	2.70	(20)	1.94	2.56	(24)
Revenues (\$/boe)	42.38	47.37	(11)	37.09	48.84	(24)
Royalties (\$/boe)	(17.16)	(20.34)	(16)	(12.55)	(17.45)	(28)
Operating expenses (\$/boe)	(16.56)	(20.99)	(21)	(17.78)	(18.31)	(3)
Operating netback (\$/boe)	8.66	6.04	43	6.76	13.08	(48)

Ironhorse's operating netback per boe for the three months ended September 30, 2016 increased by 43% from the three months ended September 30, 2015. For the nine months ended September 30, 2016, operating netback was \$6.76/boe compared to \$13.08/boe in the same period in 2015 representing a 48% decrease. Realized oil and liquids prices decreased 8% and 19% for the three and nine months ended September 30, 2016 respectively as a result of commodity price declines.

The netback variances for the three and nine month periods in 2016 compared to 2015 is the result of continued lower oil and gas prices and reduced production which impacted gas product weighting and revenues on a boe basis, which was offset by lower operating costs reported at Pembina and reduced royalties attributed to GCA credits recorded during the year.

## General and Administrative (G&A) Expense and Stock-based Compensation

(\$ thousands except per boe)	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
G&A expense	89	85	5	341	296	15
G&A expense (\$/boe)	5.62	4.29	31	14.94	5.90	153

G&A expense for the three and nine months ended September 30, 2016, increased to \$89,000 and \$341,000 compared to \$85,000 and \$296,000 for the comparable period in 2015 representing an increase of 5% and 15% respectively. The increase is attributed to \$55,000 in costs incurred during Q1 related to the unsolicited take-over bid offer as previously disclosed during Q4 2015 and reduced by the combined effect of lower director fees and higher legal costs incurred in Q2 and Q3 related primarily to the Sinopec lawsuit. The Company has incurred \$325,000 in total G&A costs related to the take-over bid as at October 31, 2016

G&A expense per boe for the three and nine months ended September 30, 2016 increased 31% to \$5.62/boe and 153% to \$14.94/boe compared to \$4.29/boe and \$5.90/boe for the 2015 comparable periods. The substantial increase is due to lower production in 2016 compared to 2015.

Share-based compensation was \$nil for the three and nine months ended September 30, 2016 and comparable 2015 periods as a result of no stock options being granted in the past two years and the expiration and forfeiture of options during 2014 and 2015.

## Finance (Income) and Expense

(\$ thousands except per boe)	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Interest (income)	(5)	(4)	25	(14)	(12)	17
Accretion	1	1	-	2	3	(33)
Financing (income)	(4)	(3)	33	(12)	(9)	33
Financing (income) (\$/boe)	(0.27)	(0.15)	80	(0.50)	(0.18)	178

For the three and nine months ended September 30, 2016 the Company received \$5,000 and \$14,000 in interest income compared to \$4,000 and \$12,000 in the comparative 2015 periods. Interest income is dependent on the level of funds held on deposit. During the first nine months in both 2016 and 2015, the Company did not have bank debt and received interest on its cash balance and deposits.

Accretion is the increase or decrease, in the reporting period, in the present value of the Company's decommissioning liabilities that are estimated based on current costs, inflated at a rate of 2% and discounted using a risk free interest factor of between 0.5% and 1.5%.

## Depreciation and Amortization

(\$ thousands except per boe)	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Depletion and amortization	221	443	(50)	287	1,106	(74)
Depletion and amortization (\$/boe)	14.00	22.28	(37)	12.57	22.04	(43)

Depletion and amortization expense was \$221,000 or \$14.00/boe for the three months ended September 30, 2016 as compared to \$443,000 or \$22.28/boe in the same period in 2015 and \$287,000 or \$12.57/boe for the nine months ended September 30, 2016 compared to \$1,106,000 or \$19.84/boe in same period of 2015. In both cases, the decrease in depletion is due to lower production in 2016 and significant impairment charges recorded in 2015 which reduced the depletion base of the Company's Pembina area asset.

## Impairment

(\$ thousands except per boe)	Three Months Ended September 30			Nine Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Impairment	-	3,499	(100)	-	4,108	(100)
Impairment (\$/boe)	-	175.99	(100)	-	81.86	(100)

An impairment expense is recognized for the amount by which the carrying amount exceeds the recoverable amount. Impairment expense is reversed when there has been a subsequent increase in the recoverable amount, but only to the extent of what the carrying amount would have been, had no impairment been recognized.

During the three months and nine months ended September 30, 2015 the Company recognized an impairment charge of \$3,499,000 and \$4,108,000 to its Pembina area CGU as a result of higher than anticipated operating costs, lower realized sales revenues and lower production as compared to the 2014 yearend reserve report forecast. The higher operating costs were mainly attributed to the blending fees and handling costs related to the high H2S content of the solution gas produced.

## Income Taxes

During the second quarter of 2015, the Alberta government enacted legislation increasing the provincial corporate income tax rate from 10% to 12% effective July 1, 2015. The effect of the income tax rate increase on the Company's 2015 deferred income tax liability was neutralized due to the impact of the third quarter impairment charges recorded.

## Capital Expenditures

(\$ thousands)	Three Months Ended September 30			Six Months Ended September 30		
	2016	2015	% Change	2016	2015	% Change
Drilling and completions	-	2	(100)	-	20	(100)
Facilities	-	19	(100)	(1)	24	(104)
Capital expenditures	-	21	(100)	(1)	44	(102)

Capital expenditures were nominal with a credit of \$1,000 recorded for the nine months ended September 30, 2016 compared to \$44,000 for nine months ended September 30, 2015. Capital expenditures for the current year are related to minor facility cost adjustments at Pembina. Capital expenditures for the 2015 comparative period included facility costs for blend gas enhancements downstream from the 7-5 pad site and recompletion costs related to the Pembina Nisku production and injection wells.

## Capital Commitments

The Company commenced abandonment work on the Company's operated Dawson, Alberta property during Q3 2016 and expects to incur surface reclamation expenditures during the last three quarters of 2017 once site assessments have been finalized.

## Financial Resources and Liquidity

Ironhorse's strategy is to maintain a capital structure which will sustain the Company while determining strategic alternatives available to maximize value for the shareholders. This strategy may consider future investments and acquisition opportunities, the amount of credit that may be obtainable from a lender, the availability of other sources of debt, the sale of assets, adjustments to the current capital expenditures program, and issuance of new shareholder capital. The Company's approach to managing liquidity risk is by preparing and monitoring capital and operating budgets, coordinating and authorizing project expenditures and updating when required as conditions

change. The Company plans to meet its obligations when due through its available cash resources and may seek potential credit facilities in the future.

The Company's shareholders' capital is not subject to external restrictions and it does not currently have any credit facilities. The Company's net working capital is as follows:

<b>As at</b>	<b>September 30, 2016</b>	December 31, 2015
Current assets	<b>3,055</b>	4,026
Current liabilities	<b>(395)</b>	(1,111)
Net working capital	<b>2,660</b>	2,915

### **Shareholders' Equity**

At September 30, 2016 the number of common shares issued and outstanding was 27,885,824 (December 31, 2015 – 27,885,824). As at November 17, 2016, the Company had 27,885,824 common shares and 105,000 stock options issued and outstanding under its stock option plan.

During the nine months ended September 30, 2016 there were no option grants and 20,000 options that were forfeited.

### **Transactions with Related Parties**

The Company, Grizzly Resources Ltd. ("GRL") and Copper Island Resources Ltd. ("CIRL") are considered related by virtue of common management. The Company and GRL are also significant joint venture partners in Ironhorse's operating areas. The Company has entered into a management contract with GRL to provide technical and administrative services.

The Directors of the Company approved director fees and special committee fee compensation for non-management board members commencing in 2015. One of the board members is also a board member of GRL and was paid director fee compensation in 2015 and in 2016.

### **Joint venture transactions**

The nature of the joint venture transactions between GRL and Ironhorse are governed by industry standard joint operating agreements. GRL provides monthly joint interest billings to the Company which include capital expenditures, operating costs, revenues and royalty costs related to joint venture lands. Throughout the year, GRL provides the Company's Board of Directors with information related to upcoming issues related to these joint properties to seek approval for any significant capital requirements or approval for major funding requirements that would be required by Ironhorse. The common joint venture property between the two companies is the Pembina area of Alberta.

### **Management fee transactions**

GRL charges Ironhorse a monthly management fee for services required to manage the Company's day to day operations. The fee is based on an estimate of accounting services, senior management services, information technology costs, reception, office rent and other general office administration. The monthly management fee for the nine months ended September 30, 2016 was \$15,000 per month (September 30, 2015 - \$15,000). The management agreement is reviewed annually to account for any changes in the Company's operating assets. For a more detailed discussion on related party transactions see note 8 of the accompanying condensed interim financial statements.

## **RISK FACTORS**

### **General**

Many risks are discussed below, but these risk factors should not be construed as exhaustive. There are numerous factors, both known and unknown, that could cause actual results or events to differ materially from expected results.

### **Depletion of reserves**

Oil and natural gas operations involve many risks that, even with a combination of experience, knowledge and careful evaluation, the Company may not be able to overcome. The long-term commercial success of the Company depends on its ability to find, acquire, develop and commercially produce oil and natural gas reserves. Without the continual addition of new reserves, any existing reserves the Company may have at any particular time and the production there from will decline over time as such existing reserves are exploited. A future increase in the Company's reserves will depend not only on the Company's ability to explore and develop any properties it may have from time to time, but also on its ability to select and acquire suitable producing properties or prospects. No assurance can be given that further commercial quantities of oil and natural gas will be discovered or acquired by the Company.

### **Financing and capital requirement**

The Company's principal risks include finding and developing economic hydrocarbon reserves efficiently and being able to fund the capital program. The Company's need for capital is both short-term and long-term in nature. Short-term working capital will be required to finance accounts receivable, drilling deposits and other similar short-term assets, while the acquisition and development of oil and natural gas properties requires large amounts of long-term capital. The Company anticipates that future capital requirements will be funded through a combination of funds from operations, sale of existing assets and issuance of debt and/or equity financing. There is no assurance that debt and equity financing will be available on terms acceptable to the Company to meet its capital requirements. If any components of the Company's business plan are missing, the Company may not be able to execute the entire business plan.

### **Changes in Government Royalty Legislation**

Provincial programs related to the oil and natural gas industry may change in a manner that adversely impacts shareholders. Ironhorse currently operates in Alberta and future amendments to royalty programs could result in a reduction of cash flows.

### **Regulatory Approval Risks**

Before proceeding with most major development projects, Ironhorse must obtain regulatory approvals and maintain these approvals through to project completion. The regulatory approval process involves stakeholder consultation, environmental impact assessments and public hearings, among other factors. Failure to obtain regulatory approvals, or failure to obtain them on a timely basis, could result in delays, abandonment, or restructuring of projects and increased costs, all of which could negatively impact future earnings and cash flow. Failure to maintain approvals, licenses, permits and authorizations in good standing could result in the imposition of fines, production limitations or suspension orders.

### **Reliance on Partners**

Ironhorse is dependent on other working interest partners to fund their contractual share of the capital expenditures. If these partners are unable to fund their contractual share of, or do not approve the capital expenditures, the partners may seek to defer programs, resulting in delays of portion of development of

Ironhorse's programs, or the partners may default such that projects may be delayed and/or Ironhorse may be partially or totally liable for their share.

## **Environmental**

The oil and natural gas industry is subject to environmental regulation pursuant to local, provincial and federal legislation. A breach of such legislation may result in the imposition of fines or issuance of clean up orders in respect to Ironhorse or its working interests. Such legislation may be changed to impose higher standards and potentially more costly obligations on Ironhorse. Furthermore, management believes that the federal political parties appear to favour new programs for environmental laws and regulations, particularly in relation to the reduction of emissions, and there is no assurance that any such programs, laws or regulations, if proposed and enacted, will not contain emission reduction targets which the Company cannot meet.

## **ACCOUNTING POLICIES AND ESTIMATES**

### **Critical Accounting Estimates**

We make judgements, estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Although these estimates are based on management's best knowledge of the amount, event or actions, actual results ultimately may differ from those estimates. The Company's financial and operating results incorporate estimates including:

- Estimated revenues, royalties, operating expenses on production;
- Estimated capital expenditures on projects that are in progress;
- Estimated depletion, depreciation, amortization expenses that are based on estimates of oil and gas proved and probable reserves that the Company expects to recover in the future;
- Estimated value of decommissioning liabilities that are dependent on estimates of future costs and timing of expenditures;
- Estimated future recoverable value of development and production assets within property, plant and equipment ("PP&E") and exploration and evaluation assets;
- Estimated deferred income tax assets and liabilities based on current tax interpretations, regulations and legislation that is subject to change;
- Estimated loss probable based on judgement and interpretation of laws and regulations.

The recoverable amounts of PP&E asset by area have been determined as the greater of the asset by area's value-in-use and fair value less costs to sell. These calculations require the use of estimates and assumptions and are subject to changes as new information becomes available including information on future commodity prices, expected production volumes, quantity of reserves and discount rates, as well as, future development and operating costs. Changes in the following assumptions used in determining the recoverable amount could affect the carrying value of the related asset.

- Reserves: Assumptions that are valid at the time of reserve estimation may change significantly when new information becomes available. Changes in forward price estimates, production costs or recovery rates may change the economic status of reserves and may ultimately result in reserves being restated.
- Oil and natural gas prices: Forward price estimates of the oil and natural gas prices are used in the cash flow model. Commodity prices have fluctuated widely in recent years due to global and regional factors including supply and demand fundamentals, inventory levels, exchange rates, weather, economic and geopolitical factors.
- Discount rate: The discount rate used to calculate the net present value of cash flows is based on estimates of an approximate industry peer group weighted average cost of capital. Changes in the general economic environment could result in significant changes to this estimate.

## **New and Future Accounting Pronouncements**

### **IFRS 9- Financial Instruments**

The IASB is replacing International Accounting Standards (“IAS”) 39, “Financial Instruments: Recognition and Measurement” with IFRS 9, “Financial Instruments”. For financial assets, IFRS 9 uses a single approach to determine whether a financial asset is measured at amortized cost or fair value, and replaces the multiple rules in IAS 39. IFRS 9 is effective for annual periods beginning on or after January 1, 2018.

### **IFRS 11- Joint Arrangements**

IFRS 11 Joint arrangements has been amended to require that the relevant principles from IFRS 3 Business combinations be applied when an organization acquires an initial or additional interest in a joint operation and the activities of the joint operation constitute a business as defined in IFRS 3. IFRS 1 is effective for annual periods beginning on or after January 1, 2016.

### **Amendment of IFRS 15 - Revenue Recognition**

The IASB has issued IFRS 15 Revenue from contracts with customers which will replace the current revenue guidance on revenue and construction contracts. The expectation is that IFRS 15 provides a recognition standard that can be applied consistently across various transactions, industries and capital markets. The standard specifies the five steps that an organization would apply to recognize revenue; identifying the contract with the customer, identifying the performance obligations to transfer distinct goods or services within the contract, determining the transaction price, allocating the transaction price to each separate performance obligation on the basis of relative stand-alone selling prices, and recognizing revenue when or as the performance obligation is satisfied. An organization will be considered to have satisfied a performance obligation by transferring a promised good or service to a customer with a transfer being defined in terms of when the customer obtains control of the promised good or service. IFRS 15 is effective for annual periods beginning on or after January 1, 2018.

## **ADVISORY SECTION**

### **Non-GAAP Measures**

The MD&A contains terms commonly used in the oil and gas industry, such as operating netbacks (“netbacks”), funds from operations and net debt. These terms are not defined by the financial measures used by the Company to prepare its financial statements and are referred to herein as non-GAAP measures. These non-GAAP measures should not be considered an alternative to, or more meaningful than, other measures of financial performance calculated in accordance with GAAP. Management believes that in addition to net earnings (loss), netbacks, funds from operations and net debt are useful financial measurement which assist in demonstrating the Company’s ability to make interest payments, fund capital expenditures necessary for future growth or repay debt. The non-GAAP measures presented may not be comparable to that reported by other companies.

### **Netback**

Ironhorse uses netback as a key performance indicator. Netback does not have a standardized meaning prescribed by Canadian GAAP and therefore may not be comparable with the calculation of similar measures by other companies. Netback is calculated by deducting royalties and operating expenses from petroleum and natural gas revenues.

## Funds from Operations

Funds from Operations is not a recognized performance measure under GAAP and does not have a standardized meaning prescribed by GAAP. Funds from operations include cash flow from operating activities and is calculated before changes in non-cash working capital and decommissioning liabilities settled. The most comparable measure calculated in accordance with GAAP is cash flow from operating activities. The Company considers it a key measure as it demonstrates the ability of the Company to generate the funds necessary to finance future capital investments and repay debt.

The following table reconciles cash flow from operating activities to funds from operations which is used in the MD&A:

(\$ thousands)	Q3 2016	Q2 2016	Q1 2016
Cash flow from operating activities	(33)	(332)	(761)
Decommissioning expenditures (recovery)	89	(5)	-
Changes in non-cash working capital	(3)	243	630
Funds from operations	53	(94)	(131)

## Net Debt

Net debt is not a recognized performance measure under GAAP and does not have a standardized meaning prescribed by GAAP. Net debt is calculated as debt and current liabilities less current assets as they appear on the balance sheet, and excludes current unrealized amounts pertaining to risk management contracts and assets held for sale and associated liabilities held for sale.

## Forward-Looking Information

Statements in this MD&A that are not historical facts may be considered to be "forward looking statements." These forward looking statements sometimes include words to the effect that management believes or expects a stated condition or result. All estimates and statements that describe the Company's objectives, goals, or future plans, including management's assessment of future plans and operations, drilling plans and timing thereof, expected production rates and additions, future operating costs and the expected levels of activities may constitute forward-looking statements under applicable securities laws and necessarily involve risks including, without limitation, risks associated with oil and gas exploration, development, exploitation, production, marketing and transportation, volatility of commodity prices, imprecision of reserve estimates, environmental risks, competition from other producers, incorrect assessment of the value of acquisitions, failure to complete and/or realize the anticipated benefits of acquisitions, delays resulting from or inability to obtain required regulatory approvals and ability to access sufficient capital from internal and external sources and changes in the regulatory and taxation environment. As a consequence, the Company's actual results may differ materially from those expressed in, or implied by, the forward-looking statements. Forward-looking statements or information are based on a number of factors and assumptions which have been used to develop such statements and information but which may prove to be incorrect. Although the Company believes that the expectations reflected in such forward-looking statements or information are reasonable, undue reliance should not be placed on forward-looking statements because the Company can give no assurance that such expectations will prove to be correct. In addition to other factors and assumptions which may be identified in this document, assumptions have been made regarding, among other things: the ability of the Company to obtain equipment and services in a timely and cost efficient manner; drilling results; the ability of the operator of the projects which the Company has an interest in to operate the field in a safe, efficient and effective manor; pipeline restrictions; and field production rates and decline rates. Readers are cautioned that the foregoing list of factors is not exhaustive. Additional information on these and other factors that could affect the Company's operations and financial results are included elsewhere herein and in reports on file with Canadian securities regulatory authorities and may be accessed through the SEDAR website ([www.sedar.com](http://www.sedar.com)). Furthermore, the forward-looking statements contained in this MD&A are made as at the date of this MD&A and Ironhorse assumes no obligation to update or revise any forward-looking statements to reflect new events or circumstances, except as required by applicable laws.

## BOE Conversion

In this document, certain natural gas volumes have been converted to barrels of oil equivalent ("boe") on the basis of one barrel ("bbl") to six thousand cubic feet ("mcf"), unless otherwise stated. A conversion ratio of one bbl to six mcf is based on an energy equivalent conversion applicable at the burner tip and does not represent a value equivalency at the wellhead. Additionally, given the value ratio based on the current price of crude oil as compared to natural gas is significantly different from the energy equivalency of 6:1, utilizing a conversion ratio of 6:1 may be misleading as an indication of value.

## QUARTERLY FINANCIAL INFORMATION

The Company's operating results over the past eight quarters reflect the ongoing shift in focus as Ironhorse increases the oil weighting of its reserves and restructures its balance sheet.

(\$ thousands except per unit and share data)	Q3 2016	Q2 2016	Q1 2016	Q4 2015	Q3 2015	Q2 2015	Q1 2015	Q4 2014
Volumes								
Natural gas (mcf/d)	162	56	137	202	162	233	171	150
Oil & NGL (bbl/d)	145	1	44	197	189	215	52	77
Total (boe/d)	172	10	67	231	216	254	81	102
Revenues (1)	669	16	162	892	941	1,262	248	545
Funds from operations(2)	53	(94)	(131)	(144)	39	401	(68)	123
Per share-basic and diluted	-	-	(0.01)	(0.01)	-	0.01	-	0.01
Net income (loss)	(123)	(69)	(144)	(2,076)	(2,850)	(634)	(159)	(331)
Per share-basic and diluted	-	-	(0.01)	(0.07)	(0.10)	(0.02)	(0.01)	(0.01)
Weighted average shares								
Basic and diluted	27,886	27,886	27,886	27,886	27,886	27,886	27,886	27,886

(1) Revenues are before royalties

(2) Non-GAAP measures are defined in the Advisory section within this MD&A.

**IRONHORSE OIL & GAS INC.  
CONDENSED INTERIM FINANCIAL STATEMENTS  
(UNAUDITED)  
FOR THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2016 AND 2015**

**MANAGEMENT'S REPORT**

The accompanying unaudited interim condensed financial statements of Ironhorse Oil & Gas Inc. (the "Company") for the three and nine months ended September 30, 2016 and 2015 have been prepared by management and were approved by the Board of Directors of the Company. These financial statements have not been reviewed by the Company's external auditors.

Dated November 17, 2016

Approved on behalf of Ironhorse Oil & Gas Inc.:

(signed) "Larry J. Parks"

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Larry J. Parks  
President & Chief Executive Officer

(signed) "Karen Hutson"

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Karen Hutson  
VP Finance & Chief Financial Officer

**IRONHORSE OIL & GAS INC.**  
**Condensed Interim Statements of Financial Position**  
**(Unaudited)**

(In thousands of Canadian dollars)

	September 30, 2016	December 31, 2015
<b>ASSETS</b>		
Current assets		
Cash	2,388	3,515
Accounts receivable	346	203
Prepaid expenses and deposits	321	308
	<b>3,055</b>	4,026
Property, plant and equipment (note 3)	10,278	10,538
Deferred income taxes (note 9)	767	642
	<b>14,100</b>	15,206
<b>LIABILITIES</b>		
Current liabilities		
Accounts payable and accrued liabilities	395	1,111
Decommissioning liabilities (note 4)	306	360
	<b>701</b>	1,471
<b>SHAREHOLDERS' EQUITY</b>		
Shareholders' capital (note 5)	29,875	29,875
Contributed surplus	2,048	2,048
Deficit	(18,524)	(18,188)
	<b>13,399</b>	13,735
	<b>14,100</b>	15,206

*The accompanying notes are an integral part of these condensed interim financial statements.*

Approved on behalf of the Board:

(signed) "Larry J. Parks"

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 Director

(signed) "Gerry C. Quinn"

\_\_\_\_\_  
 Director

**IRONHORSE OIL & GAS INC.**  
**Condensed Interim Statements of Income (Loss)**  
**(Unaudited)**

(In thousands of Canadian dollars except per share amounts)

	Three months ended September 30		Nine months ended September 30	
	2016	2015	2016	2015
<b>REVENUES</b>				
Petroleum and natural gas revenues, gross	669	941	847	2,451
Royalties	(271)	(404)	(286)	(876)
	<b>398</b>	<b>537</b>	<b>561</b>	<b>1,575</b>
<b>EXPENSES</b>				
Operating and transportation	261	417	406	919
General and administrative expense	89	85	341	296
Finance income (note 6)	(4)	(3)	(12)	(9)
Depletion and amortization (note 3)	221	443	287	1,106
Impairment (note 3)	-	3,499	-	4,108
	<b>567</b>	<b>4,441</b>	<b>1,022</b>	<b>6,420</b>
<b>Loss before income taxes</b>	<b>(169)</b>	<b>(3,904)</b>	<b>(461)</b>	<b>(4,845)</b>
Deferred income recovery (note 9)	(46)	(1,054)	(125)	(1,202)
<b>Loss and comprehensive loss</b>	<b>(123)</b>	<b>(2,850)</b>	<b>(336)</b>	<b>(3,643)</b>
Deficit, beginning of the period	(18,401)	(13,262)	(18,188)	(12,469)
<b>Deficit, end of the period</b>	<b>(18,524)</b>	<b>(16,112)</b>	<b>(18,524)</b>	<b>(16,112)</b>
<b>Loss per share (note 5)</b>				
Basic and diluted	(0.00)	(0.10)	(0.01)	(0.13)

*The accompanying notes are an integral part of these condensed interim financial statements.*

**IRONHORSE OIL & GAS INC.**  
**Condensed Interim Statement of Changes in Equity**  
**(Unaudited)**

(In thousands of Canadian dollars)

	<b>Shareholders'</b>	<b>Contributed</b>		<b>Total</b>
	<b>Capital</b>	<b>Surplus</b>	<b>Deficit</b>	<b>Equity</b>
<b>Balance as at December 31, 2014</b>	29,875	2,048	(12,469)	19,454
Net loss	-	-	(3,643)	(3,643)
<b>Balance as at September 30, 2015</b>	29,875	2,048	(16,112)	15,811
<b>Balance as at December 31, 2015</b>	29,875	2,048	(18,188)	13,735
Net Loss	-	-	(336)	(336)
<b>Balance as at September 30, 2016</b>	29,875	2,048	(18,524)	13,399

*The accompanying notes are an integral part of these condensed interim financial statements*

**IRONHORSE OIL & GAS INC.**  
**Condensed Interim Statement of Cash Flows**  
**(Unaudited)**

(In thousands of Canadian dollars)

	Three months ended September 30		Nine months ended September 30	
	2016	2015	2016	2015
<b>Cash flows from operating activities</b>				
Net loss	(123)	(2,850)	(336)	(3,643)
Items not affecting cash:				
Depletion and amortization (note 3)	221	443	287	1,106
Impairments (note 3)	-	3,499	-	4,108
Accretion of decommissioning liabilities (note 4)	1	1	2	3
Deferred income tax recovery	(46)	(1,054)	(125)	(1,202)
Net change in decommissioning liabilities (note 4)	(89)	-	(84)	-
Change in non-cash working capital (note 10)	3	739	(870)	796
Net cash flow from operating activities	(33)	778	(1,126)	1,168
<b>Cash flows from investing activities</b>				
Property, plant and equipment expenditures (note 3)	-	(21)	1	(44)
Changes in non-cash working capital (note 10)	-	18	(2)	10
Net cash flow from investing activities	-	(3)	(1)	(34)
Increase (decrease) in cash	(33)	775	(1,127)	1,134
Cash, beginning of the period	2,421	2,828	3,515	2,469
<b>Cash, end of the period</b>	<b>2,388</b>	<b>3,603</b>	<b>2,388</b>	<b>3,603</b>
Supplemental cash information:				
Interest expense paid (received)	(5)	(4)	(14)	(12)

*The accompanying notes are an integral part of these condensed interim financial statements.*

## **IRONHORSE OIL & GAS INC.**

### **Notes to the Condensed Interim Financial Statements (Unaudited)**

(All amounts are in thousands of dollars, unless otherwise indicated)

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#### **1. REPORTING ENTITY**

Ironhorse Oil & Gas Inc. ("Ironhorse" or the "Company") is incorporated under the Business Corporations Act of Alberta with its principal place of business at 1000, 324-8<sup>th</sup> Avenue SW, Calgary, Alberta. The Company's shares are listed on the TSX Venture Exchange under the symbol IOG-V. Ironhorse is engaged in the exploration for, development and production of petroleum and natural gas reserves in western Canada.

#### **2. BASIS OF PRESENTATION**

##### **(a) Statement of Compliance**

The condensed financial statements (the "financial statements") have been prepared in accordance with IAS 34, "*Interim Financial Reporting*" using accounting policies consistent with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). The Company's significant accounting policies are the same as those disclosed in Note 3 of the Company's audited financial statements as at and for the years ended December 31, 2015 and 2014. These condensed interim financial statements do not include all of the information required for full annual financial statements.

These financial statements were authorized for issuance in accordance with a resolution of the Board of Directors on November 17, 2016.

##### **(b) New Accounting Standards**

###### **IFRS 9- Financial Instruments**

The IASB is replacing International Accounting Standards ("IAS") 39, "Financial Instruments: Recognition and Measurement" with IFRS 9, "Financial Instruments". For financial assets, IFRS 9 uses a single approach to determine whether a financial asset is measured at amortized cost or fair value, and replaces the multiple rules in IAS 39. IFRS 9 is effective for annual periods beginning on or after January 1, 2018.

###### **IFRS 11- Joint Arrangements**

IFRS 11 Joint arrangements has been amended to require that the relevant principles from IFRS 3 Business combinations be applied when an organization acquires an initial or additional interest in a joint operation and the activities of the joint operation constitute a business as defined in IFRS 3. IFRS 11 is effective for annual periods beginning on or after January 1, 2016.

###### **Amendment of IFRS 15 - Revenue Recognition**

The IASB has issued IFRS 15 Revenue from contracts with customers which will replace the current revenue guidance on revenue and construction contracts. The expectation is that IFRS 15 provides a recognition standard that can be applied consistently across various transactions, industries and capital markets. The standard specifies the five steps that an organization would apply to recognize revenue; identifying the contract with the customer, identifying the performance obligations to transfer distinct goods or services within the contract, determining the transaction price, allocating the transaction price to each separate performance obligation on the basis of relative stand-alone selling prices, and recognizing revenue when or as the performance obligation is satisfied. An organization will be considered to have satisfied a performance obligation by transferring a promised good or service to a customer with a transfer being defined in terms of when the customer obtains control of the promised good or service. IFRS 15 is effective for annual periods beginning on or after January 1, 2018.

### 3. PROPERTY, PLANT AND EQUIPMENT (“PP&E”)

<b>PP&amp;E – Cost</b>	
<b>Balance, December 31, 2014</b>	23,630
Additions	44
Changes in decommissioning liabilities	26
<b>Balance, December 31, 2015</b>	23,700
Additions	(1)
Changes in decommissioning liabilities	28
<b>Balance, September 30, 2016</b>	<b>23,727</b>
<b>Accumulated depletion and amortization</b>	
<b>Balance, December 31, 2014</b>	(5,248)
Depletion and amortization expense	(1,475)
Impairment	(6,439)
<b>Balance, December 31, 2015</b>	(13,162)
Depletion and amortization expense	(287)
Impairment	-
<b>Balance, September 30, 2016</b>	<b>(13,449)</b>
<b>Carrying value</b>	
As at December 31, 2015	10,538
<b>As at September 30, 2016</b>	<b>10,278</b>

#### Impairment

For the nine month period ended September 30, 2015 the Company recorded an impairment loss of \$4,108,000 against PP&E related to its Pembina CGU. The impairment loss was due to a decrease in the value-in-use triggered primarily as a result of declining crude oil and natural gas forward commodity prices and an increase in operating costs, as compared to the December 31, 2014 external reserve report forecast.

The recoverable amount for the Pembina CGU value-in-use of \$10.3 million was determined by estimating the net present value of the before tax cash flows from oil, natural gas and liquids proved plus probable reserves using current forecast prices, discounted at a rate of 10%.

### 4. DECOMMISSIONING LIABILITIES

	<b>September 30,</b>	December 31,
	<b>2016</b>	2015
<b>Balance, beginning of period</b>	<b>360</b>	331
Change in estimates and discount rate	<b>28</b>	26
Settlement of decommissioning liabilities	<b>(84)</b>	-
Accretion expense	<b>2</b>	3
<b>Balance, end of period</b>	<b>306</b>	360

During Q3 2016 decommissioning work commenced at the Company’s operated Dawson, Alberta property as wells were cut and capped and pipelines abandoned. Remaining work includes environmental assessment and surface reclamation.

## 5. SHAREHOLDERS' CAPITAL

The Company has authorized an unlimited number of common shares and first preferred shares. The outstanding shareholders' capital is as follows:

### (a) Issued

	Number of shares	Amount
<b>Balance, December 31, 2015 and September 30, 2016</b>	27,885,824	29,875

### (b) Share based compensation

During the nine months ended September 30, 2016 no options were granted and 20,000 options were forfeited. As at September 30, 2016 there were 105,000 options outstanding with a weighted average strike price of \$0.17.

### (c) Per Share Amounts

For nine months ended September 30	2016	2015
Basic and Diluted :		
Income (loss) per share	(0.01)	(0.13)
Weighted average common shares – basic	27,885,824	27,885,824
Weighted average common shares – diluted	27,885,824	27,885,824

## 6. FINANCE (INCOME) EXPENSE

For nine months ended September 30	2016	2015
Interest (income) expense and finance charges	(14)	(12)
Accretion and decommissioning liabilities (note 4)	2	3
	(12)	(9)

## 7. CAPITAL MANAGEMENT

The Company's shareholders' capital is not subject to external restrictions. The Company does not have any credit facilities and there were no changes in the Company's approach to capital management during the period. The Company's net working capital is as follows.

As at	September 30, 2016	December 31, 2015
Current assets	3,055	4,026
Current liabilities	(395)	(1,111)
Net working capital	2,660	2,915

## 8. RELATED PARTY TRANSACTIONS

The Company, Grizzly Resources Ltd. (“GRL”) and Copper Island Resources Ltd. (“CIRL”) are considered related by virtue of common management. The Company and GRL are also significant joint venture partners in Ironhorse’s operating areas. The Company has entered into a management contract with GRL to provide technical and administrative services.

A summary of related party transactions included in the financial statements are as follows:

For the nine months ended September 30	2016	2015
Capital expenditures	-	27
Operating expenses	433	147
Petroleum and natural gas revenues	812	2,387
Royalties	331	829
General and administrative – management fees	135	135

The inter-company net receivable balances due from related parties were as follows:

As at September 30	2016	2015
Grizzly Resources Ltd.	234	82

The amounts outstanding at September 30, 2016 were settled by October 31, 2016.

### Director fees

During the second quarter of 2015, the Directors of the Company authorized director fees and special committee fee compensation for non-management board members, commencing with the first quarter of 2015. Director fees of \$7,500 have been recorded during the first nine months of 2016 (\$7,500 – 2015) related to a member of the Board of Directors who is also a director of Grizzly Resources Ltd.

## 9. INCOME TAXES

Although the Company has incurred losses for the fiscal period and past two fiscal years, a net deferred tax asset of \$767,000 has been recorded as at September 30, 2016 (\$642,000 – December 31, 2015). The Company recognized a net deferred tax asset for non-capital loss carry-forwards based on the Company’s estimate that it is probable that it will earn sufficient taxable profits in the future to utilize these losses before they expire. Future taxable profits were estimated using the independently evaluated reserve report.

## 10. SUPPLEMENTAL DISCLOSURES

For the nine months ended September 30	2016	2015
Changes in non-cash working capital:		
Accounts receivable	(143)	130
Prepaid expenses	(13)	(34)
Accounts payable and accrued liabilities	(716)	710
	(872)	806
Relating to:		
Operating activities	(870)	796
Investing activities	(2)	10
	(872)	806

## **11. Statement of Claim**

On February 23, 2016, the Company and GRL jointly filed a Statement of Claim in the Court of Queen's Bench of Alberta against Sinopec Daylight Energy Ltd. ("Sinopec"), the operator of pipelines and facilities associated with the Pembina L2L Pool production. The Company and GRL are seeking damages against Sinopec for misrepresentation and breach of contract. On April 15, 2016 Sinopec Daylight Energy Ltd. filed a Statement of Defense in response to the Statement of Claim, as well as a Counterclaim. On May 24, 2016, the Company and GRL filed a Statement of Defense to the Sinopec Counterclaim.