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Equity and commodity performance

- The S&P TSX Composite Oil & Gas E&P Index was up 4% last week, while the overall market was up 1%. Notable top performers w/w in the Canadian Junior & Intermediate E&P space were RRX, BTE, and GXO (Figure 1).
- Last week, Edmonton Par was up 3% and the heavy crude oil benchmark WCS was down 1% (Figure 6). NYMEX Henry Hub natural gas down 2% and the Canadian benchmark, AECO, was down 68% (Figure 9).

Land sales

- August 22, AB land sale. A total of 228.5k acres were sold for a total bonus of ~\$25.2M which translates to ~\$110 /acre average.
 - Wildwood / Pembina: ~74 sections (47,360 acres) sold in the Wildwood / Pembina area to a broker for a total bonus of ~\$13.5M or ~\$286 / acre, with various rights including Duvernay rights, in most packages. Companies active in the area include OBE targeting the Cardium, and Teine targeting the Duvernay. PSK also holds a significant royalty position in the area.
 - Pembina: ~31 sections (19,840 acres) sold in the Pembina area to a broker for a total bonus of ~\$1.1M or ~\$57 /acre, with rights posted including the Duvernay rights, in most packages. Companies active in the area include OBE, BNE, JOY, and TVE targeting the Cardium, and Teine targeting the Duvernay. PSK also holds an extensive royalty position in the area.

Licenses

- In our coverage universe, the following wells were licensed last week: CVE licensed 1 McMurray well; CPG licensed 1 Viking well, and 1 Torquay well; ECA licensed 7 Montney wells; HSE licensed 2 Rex wells, and 11 Quaternary Drift wells; OBE licensed 2 Bluesky wells; RRX licensed 1 Viking well; TOG licensed 3 Frobisher wells, and 1 Midale well; VET licensed 2 Frobisher wells, 1 Midale well, 1 Oungre Evaporite well, and 2 Alida wells.

Recent publications, announcements, and estimate changes

- On the Canadian E&P side, we made modest changes to our NVA model (Figure 25).

Oilfield services corner

- The WCSB rig count increased 17 w/w with the active fleet of 228 up 6% from prior year levels (see Figure 19). Meanwhile, the US rig count fell 13 after being unchanged in the prior week (Figure 20).
- In our OFS chart of the week, we highlight current valuation multiples for the CG Consensus Oilfield Universe.

Equity returns

Figure 1: Canadian E&P equities – weekly returns (priced as of market close on Friday August 24, 2018)

Top performers				Bottom performers					
		Price	w/w			Price	w/w		
1	RRX	Raging River Exploration Inc	\$5.95	18%	1	CNE	Canacol Energy Ltd	\$4.12	-2%
2	BTE	Baytex Energy Corp	\$4.38	18%	2	SRX	Storm Resources Ltd	\$2.93	-2%
3	GXO	Granite Oil Corp	\$1.98	11%	3	PSH	Petroshale Inc	\$1.80	-2%
4	PONY	Painted Pony Energy Ltd	\$2.97	10%	4	EPS	Epsilon Energy Ltd/Canada	\$2.56	-1%
5	PEY	Peyto Exploration & Development Corp	\$10.89	9%	5	HSE	Husky Energy Inc	\$21.80	0%
6	POU	Paramount Resources Ltd	\$14.81	9%	6	FEC	Frontera Energy Corp	\$19.00	0%
7	KEL	Kelt Exploration Ltd	\$9.55	9%	7	IPO	InPlay Oil Corp	\$1.51	1%
8	NVA	NuVista Energy Ltd	\$7.89	9%	8	FRU	Freehold Royalties Ltd	\$12.24	2%
9	PXX	BlackPearl Resources Inc	\$1.28	8%	9	SU	Suncor Energy Inc	\$54.21	2%
10	ATH	Athabasca Oil Corp	\$1.59	7%	10	ERF	Enerplus Corp	\$16.59	2%
S&P/TSX Composite Index			16,451.52	1%	S&P/TSX Composite Index			16,451.52	1%
S&P/TSX Composite Energy Index			2,413.08	1%	S&P/TSX Composite Energy Index			2,413.08	1%
S&P/TSX Composite O&G E&P Index			1,628.52	4%	S&P/TSX Composite O&G E&P Index			1,628.52	4%

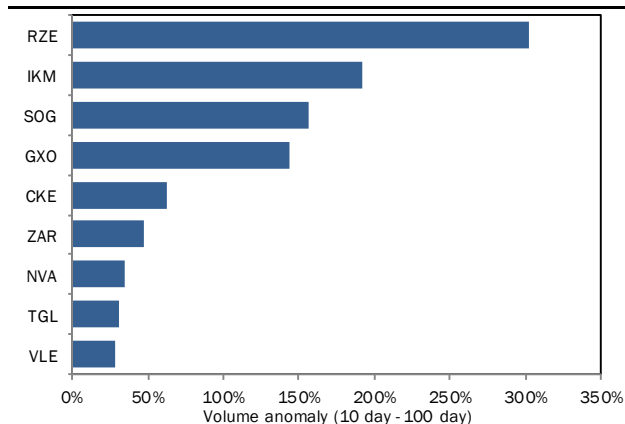
Note: stocks under \$1.00/share are excluded from top and bottom performers.
Source: Company Reports, Canaccord Genuity, Bloomberg Finance L.P.

Figure 3: Canadian E&P equities – YTD returns (priced as of market close on Friday August 24, 2018)

Top performers				Bottom performers					
		Price	YTD			Price	YTD		
1	TGL	TransGlobe Energy Corp	\$4.55	139%	1	BXE	Bellatrix Exploration Ltd	\$1.29	-40%
2	RZE	Razor Energy Corp	\$3.00	90%	2	GXO	Granite Oil Corp	\$1.98	-36%
3	TVE	Tamarack Valley Energy Ltd	\$5.09	78%	3	CR	Crew Energy Inc	\$2.04	-35%
4	ATH	Athabasca Oil Corp	\$1.59	49%	4	BNP	Bonavista Energy Corp	\$1.54	-32%
5	GXE	Gear Energy Ltd	\$1.20	41%	5	PEY	Peyto Exploration & Development Corp	\$10.89	-28%
6	ERF	Enerplus Corp	\$16.59	35%	6	AAV	Advantage Oil & Gas Ltd	\$4.01	-26%
7	KEL	Kelt Exploration Ltd	\$9.55	33%	7	RRX	Raging River Exploration Inc	\$5.95	-26%
8	BNE	Bonterra Energy Corp	\$20.07	31%	8	POU	Paramount Resources Ltd	\$14.81	-24%
9	GTE	Gran Tierra Energy Inc	\$4.34	27%	9	PSK	PrairieSky Royalty Ltd	\$24.67	-23%
10	HSE	Husky Energy Inc	\$21.80	23%	10	VLE	Valeura Energy Inc	\$3.37	-23%
S&P/TSX Composite Index			16,451.52	1%	S&P/TSX Composite Index			16,451.52	1%
S&P/TSX Composite Energy Index			2,413.08	2%	S&P/TSX Composite Energy Index			2,413.08	2%
S&P/TSX Composite O&G E&P Index			1,628.52	-1%	S&P/TSX Composite O&G E&P Index			1,628.52	-1%

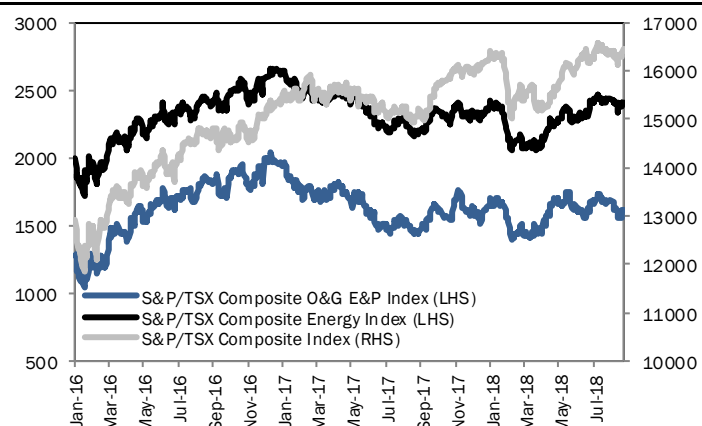
Note: stocks under \$1.00/share are excluded from top and bottom performers.
Source: Company Reports, Canaccord Genuity, Bloomberg Finance L.P.

Figure 2: Most active stocks by volume anomaly



Note: volume anomaly is 10-day average vs. 100-day average.
Source: Company Reports, Canaccord Genuity, Bloomberg Finance L.P.

Figure 4: Key index performance

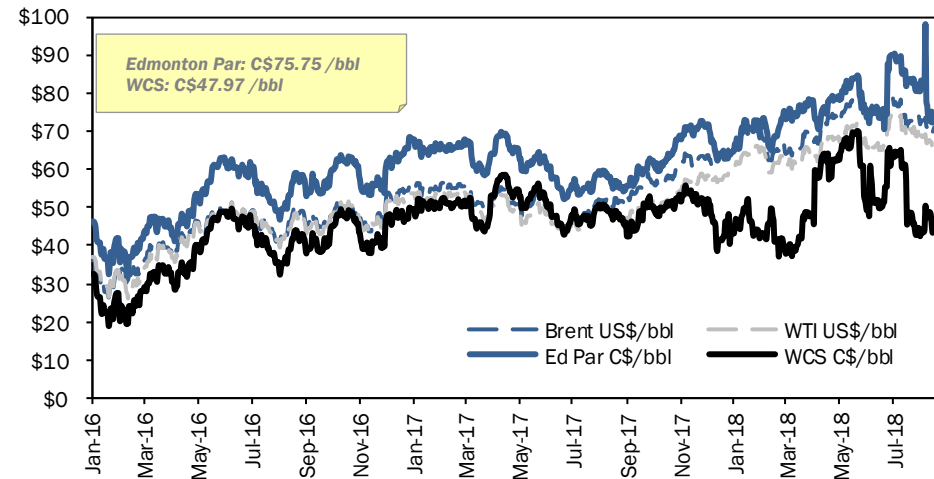


Source: Company Reports, Canaccord Genuity, Bloomberg Finance L.P.

Crude oil fundamentals

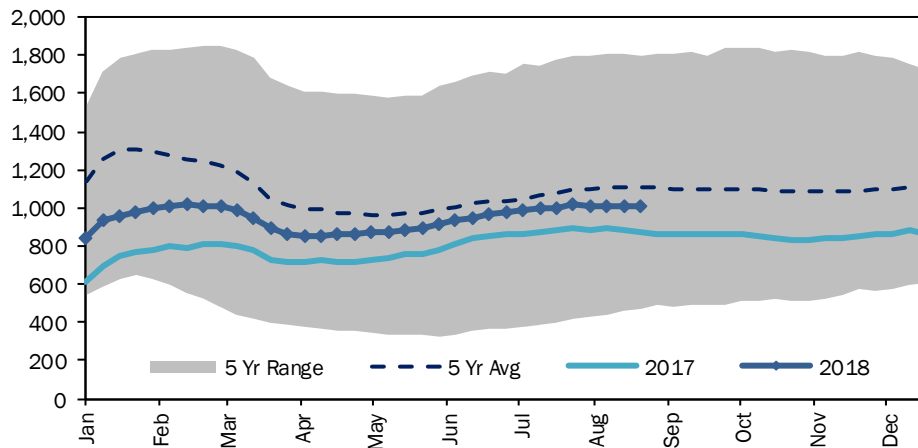
- Last week, the Brent crude oil benchmark was up 6%, and WTI crude oil benchmark was up 3%.
- Year-to-date, Brent is up 36%, while WTI is up 28%.
- Brent traded at a US\$6.82 /bbl premium to WTI at the close on Friday.
- Last week in Canada, the light crude oil benchmark, Edmonton Par was up 3% and the heavy crude oil benchmark, WCS, was down 1% (prompt month prices quoted).
- Year to date, Edmonton Par is up 12%, while WCS is down 3%.
- The WTI - Ed Par differential sits at US\$10.50 /bbl, while the WTI - WCS differential sits at US\$31.85 /bbl (prompt month prices quoted).
- The onshore North American oil rig count is 16% above this time last year.
- U.S. Crude oil inventories are down 12% from last year.

Figure 5: Select crude oil benchmark prices



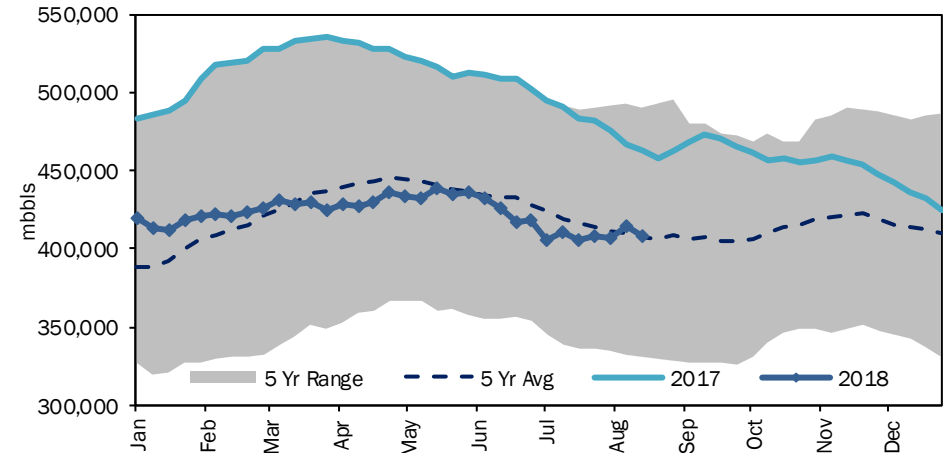
Source: Bloomberg Finance L.P., NET Energy

Figure 6: North American oil rig count



Source: Baker Hughes

Figure 7: U.S. crude oil inventories (excl. SPR)

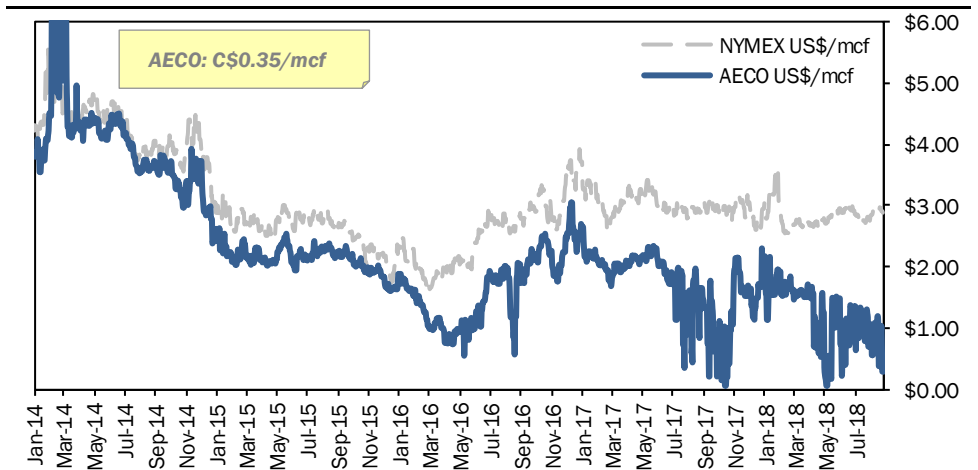


Source: U.S. Department of Energy

Natural gas fundamentals

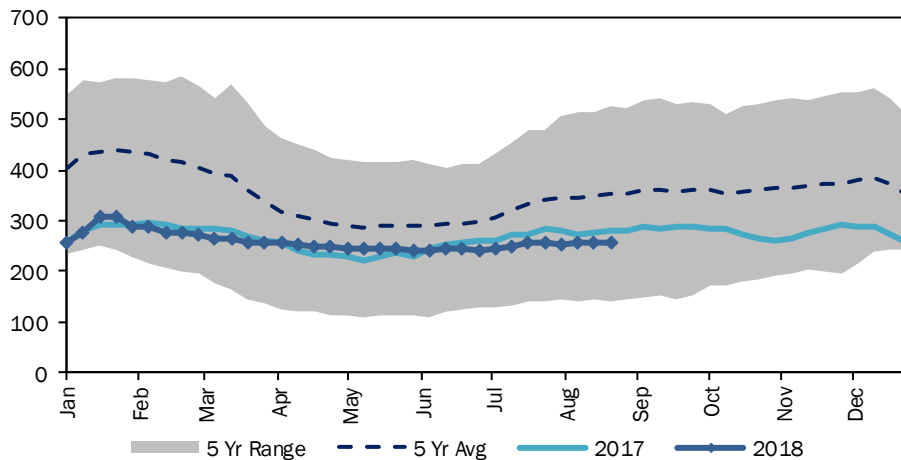
- Last week, the NYMEX Henry Hub natural gas benchmark was down 2% and the Canadian benchmark, AECO, was down 68%.
- Year to date, Henry Hub is down 22% and AECO is down 90%.
- The onshore North American gas rig count is up 1% from last week.
- At ~3.0 Tcf, North American natural gas inventories are down 18% below the 5-year average and are down 21% from last year.

Figure 8: Select natural gas benchmark prices



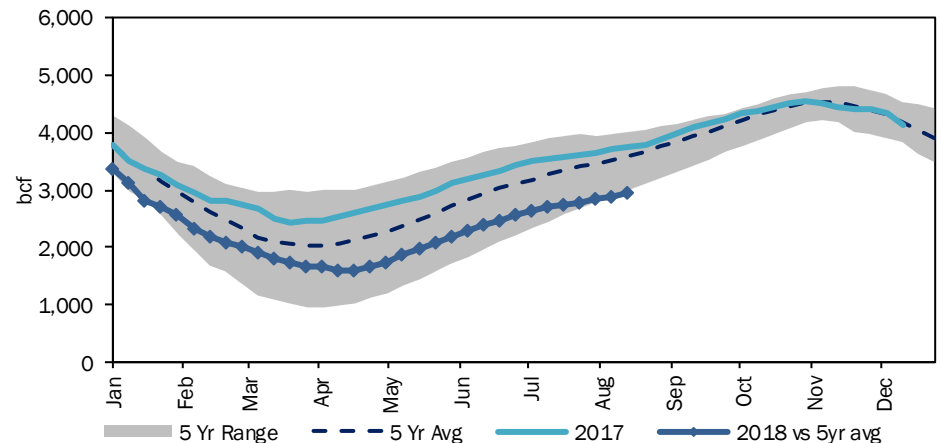
Source: Bloomberg Finance L.P., NYMEX

Figure 9: North American gas rig count



Source: Baker Hughes

Figure 10: North American natural gas inventories



Source: EIA, Canadian Enerdata Ltd.

Weekly WCSB well licensing

Figure 11: Selected well licenses by target formation (August 20 – August 27, 2018)

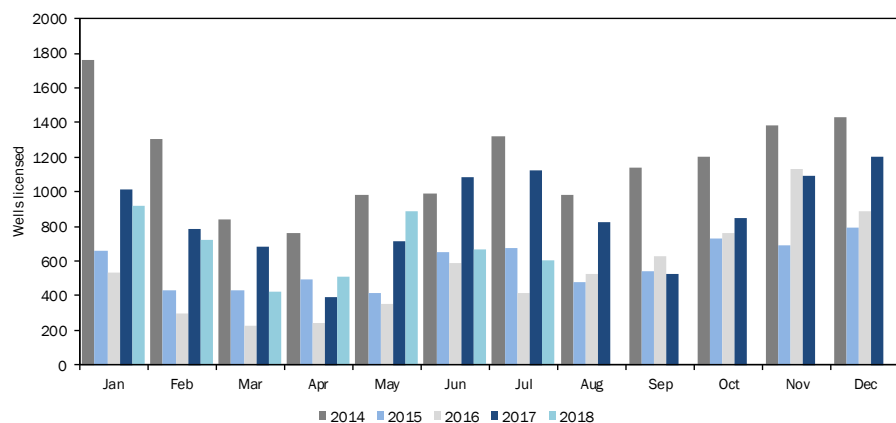
- There were 78 well licenses issued last week compared to 144 the week prior.
- Cenovus licensed 1 McMurray well.
- Crescent Point licensed 1 Viking well, and 1 Torquay well.
- Encana licensed 7 Montney wells.
- Husky licensed 2 Rex wells, and 11 Quaternary Drift wells.
- Obsidian licensed 2 Bluesky wells.
- Raging River licensed 1 Viking well.
- TORC licensed 3 Frobisher wells, and 1 Midale well.
- Vermillion licensed 2 Frobisher wells, and 1 Midale well, 1 Oungre Evaporite well, and 2 Alida wells.

	Viking	Frobisher	Torquay	Montney	Midale	Oungre Evaporite	Rex	Alida	Glauconite	Duvernay	Quaternary Drift	McMurray	Precambrian	Wabamun	Basal Quartz	McLaren	Leduc	Bluesky	Total
Advance Drilg Ltd										4									4
ARC Rsrcs Ltd				12															12
Cenovus Enrg Inc												1							1
Crescent Point Enrg Corp	1		1																2
Encana Corp				7															7
Hitic Enrg Ltd										1									1
Huron Rsrcs Corp														1					1
Husky Oil Oprtns Ltd							2				11								13
ISH Enrg Ltd	1																		1
Karve Enrg Inc	1																		1
Kelt Expl Ltd				1															1
MEG Enrg Corp												5							5
North Amer Helium Inc													1						1
Obsidian Enrg Ltd																		2	2
Raging River Expl Inc	1																		1
Rolling Hills Enrg Ltd	1																		1
Ron Rsrcs Ltd																1			1
Spectrum Rsrc Grp Inc		4																	4
Steelhead PetrI Ltd	1																		1
Teine Enrg Ltd	3																		3
Tervita Corp																	1		1
TORC O&G Ltd		3			1														4
Torxen Enrg Ltd									2						1				3
Tundra O&G Ltd		1																	1
Vermilion Enrg Inc		2			1	1		2											6
Grand Total	7	10	1	20	2	1	2	2	2	5	11	6	1	1	1	1	1	2	78

Source: GeoScout, Canaccord Genuity

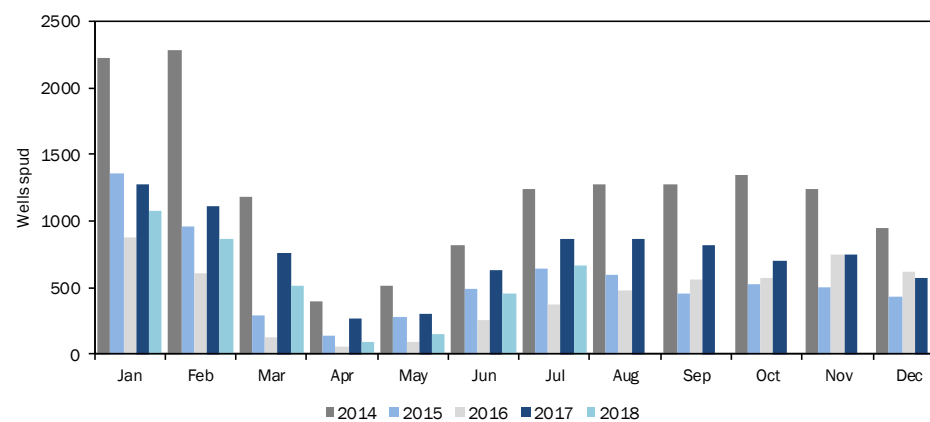
YTD WCSB wells licensed and spud

Figure 12: Wells licensed by month



Source: GeoScout, Canaccord Genuity

Figure 13: Wells spud by month



Source: GeoScout, Canaccord Genuity

Wells licensed

- In 2018 year to date, wells licensed are down 32% y/y in the Western Canadian Sedimentary Basin (WCSB).
- June saw 606 wells licensed vs. 1126 the prior year.

Wells spud

- In 2018 year to date, wells spud was down 30% in the WCSB.
- July saw 669 wells spud vs. 865 the prior year.
- The most active drillers YTD were CPG, RRX, WCP, Tiene & CNQ.

Land Sale Activity

August 22, AB land sale summary:

- In the August 22, AB land sale, a total of ~228.5k acres were sold for a total bonus of ~\$25.2M which translates to ~\$110 /acre average.

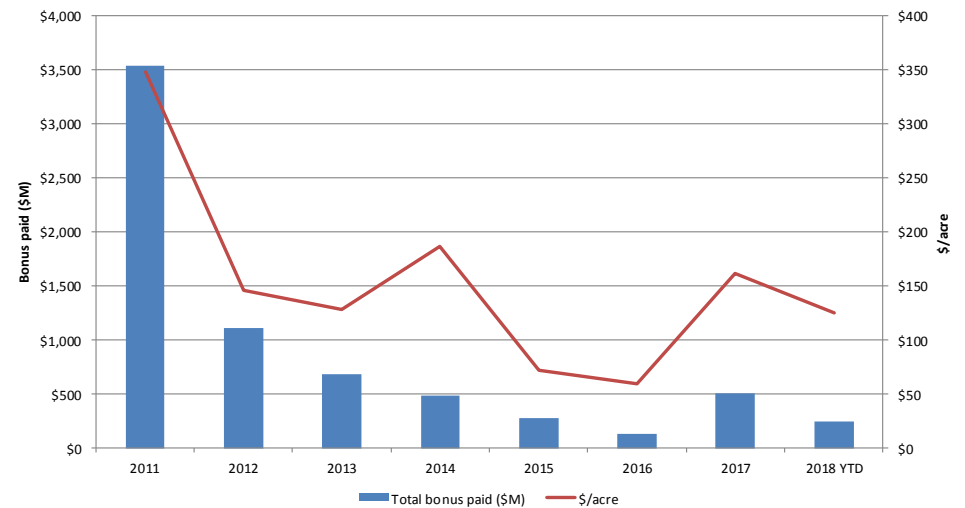
Highlights from the sale include:

- Wildwood / Pembina:** ~74 sections (47,360 acres) sold in the Wildwood / Pembina area to a broker for a total bonus of ~\$13.5M or ~\$286 / acre, with various rights including Duvernay rights, in most packages. Companies active in the area include OBE targeting the Cardium, and Teine targeting the Duvernay. PSK also holds a significant royalty position in the area.
- Pembina:** ~31 sections (19,840 acres) sold in the Pembina area to a broker for a total bonus of ~\$1.1M or ~\$57 /acre, with rights posted including the Duvernay rights, in most packages. Companies active in the area include OBE, BNE, JOY, and TVE targeting the Cardium, and Teine targeting the Duvernay. PSK also holds an extensive royalty position in the area.

Next AB land sale: September 5:

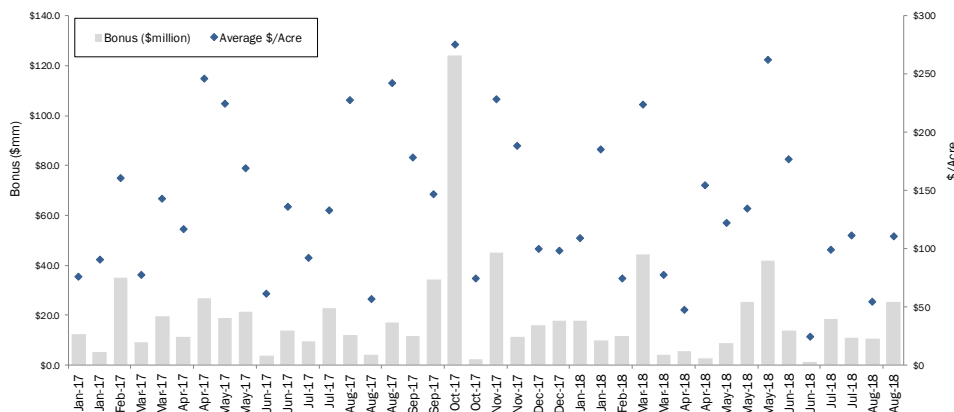
- In the next land sale, AB has ~537.5k acres available for sale, with packages available scattered across the province.

Figure 14: Historical bonuses collected from AB land sales



Source: Company Reports, Canaccord Genuity estimates

Figure 15: Historical AB land sale bonuses and avg \$/acre



Source: GeoScout, Canaccord Genuity

Figure 16: Upcoming land sales in the WCSB

Alberta	B.C.	Sask
5-Sep-18	12-Sep-18	2-Oct-18
19-Sep-18	10-Oct-18	4-Dec-18
3-Oct-18	14-Nov-18	
17-Oct-18	12-Dec-18	

Upcoming land sales:

Alberta – September 5, 2018: A total of ~537,500 acres are for sale in the next AB land sale.

British Columbia – September 12, 2018: A total of ~10,850 acres are for sale in the next BC land sale.

Saskatchewan – October 2, 2018: A total of ~27,100 acres are for sale in the next SK land sale.

Best Wells in the Basin

Figure 17: Best producing oil & gas wells in British Columbia, June 2018 (GeoScout CDR data)

UWI	CDR Oil (bbl/d)	Company Name	Proj. Formation @ TD	Date on Production	UWI	CDR Gas (mmcf/d)	Company Name	Proj. Formation @ TD	Date on Production
100/11-17-081-16W6/00	526	ARC Rsrcls Ltd	TRmontney	5/1/2018	103/01-35-077-15W6/00	12.0	Encana Corp	TRmontney	5/1/2018
100/12-17-081-16W6/00	517	ARC Rsrcls Ltd	TRmontney	5/1/2018	100/08-35-077-15W6/00	12.0	Encana Corp	TRmontney	5/1/2018
102/12-17-081-16W6/00	426	ARC Rsrcls Ltd	TRmontney	5/1/2018	100/13-16-077-14W6/00	11.8	Encana Corp	TRmontney	5/1/2018
102/05-17-081-16W6/00	404	ARC Rsrcls Ltd	TRmontney	4/1/2018	100/08-03-080-18W6/00	11.6	Shell Cda Ltd	TRmontney	4/1/2018
103/05-17-081-16W6/00	372	ARC Rsrcls Ltd	TRmontney	4/1/2018	100/14-14-077-15W6/00	11.0	Encana Corp	TRmontney	11/1/2017
100/05-17-081-16W6/00	321	ARC Rsrcls Ltd	TRmontney	4/1/2018	102/14-14-077-15W6/00	11.0	Encana Corp	TRmontney	11/1/2017
100/03-17-081-16W6/00	228	ARC Rsrcls Ltd	TRmontney	4/1/2018	100/13-26-077-15W6/00	10.8	Encana Corp	TRmontney	5/1/2018
103/05-11-081-17W6/00	203	ARC Rsrcls Ltd	TRmontney	11/1/2017	102/11-07-080-18W6/00	10.2	Shell Cda Ltd	TRmontney	4/1/2018
100/16-21-081-17W6/00	168	ARC Rsrcls Ltd	TRmontney	6/1/2018	100/04-21-077-14W6/00	10.2	Encana Corp	TRmontney	5/1/2018
103/09-21-081-17W6/00	165	ARC Rsrcls Ltd	TRmontney	6/1/2018	100/10-18-077-14W6/00	10.2	Encana Corp	TRmontney	10/1/2017

Source: GeoScout, Canaccord Genuity

- In Figure 17, we highlight the best producing oil and gas wells in BC, in June.
- On the CDR oil side, Arc Resources holds all 10 top spot with its Montney wells that produced from 526 bbl/d to 165 bbl/d, in June.
- On the CDR gas side, Encana holds eight of the top spots with its Montney wells that produced from 12 mmcf/d to 10.2 mmcf/d, in June, while Shell holds two top spots with its Montney wells that produced from 11.6 mmcf/d to 10.2 mmcf/d, during the month.

Figure 18: Best producing oil & gas wells in the WCSB, June 2018 (GeoScout (CDR) data)

UWI	CDR Oil (bbl/d)	Company Name	Proj. Formation @ TD	Date on Production	UWI	CDR Gas (mmcf/d)	Company Name	Proj. Formation @ TD	Date on Production
104/16-12-075-09W6/00	642	Surge Enrg Inc	TRdoig	5/18/2018	102/09-02-063-05W6/00	15.7	Seven Generations Enrg Lt	TRmontney	3/23/2018
100/14-14-077-08W6/00	638	Tourmaline Oil Corp	TRchly_lk	4/20/2018	102/10-02-063-05W6/00	15.6	Seven Generations Enrg Lt	TRmontney	3/22/2018
100/15-14-077-08W6/00	594	Tourmaline Oil Corp	TRchly_lk	4/22/2018	100/06-24-056-26W5/00	13.8	Tourmaline Oil Corp	Kspirit_r	3/1/2018
100/14-21-064-03W6/00	586	Hammerhead Rsrcls Inc	TRmontney	2/12/2018	102/13-18-058-26W5/00	13.6	Cenovus Enrg Inc	Kwilrich	2/23/2018
100/15-15-064-23W5/00	567	Tangle Creek Enrg Ltd	TRmontney	5/16/2018	100/08-10-062-04W6/00	12.4	Seven Generations Enrg Lt	TRmontney	5/12/2018
100/08-02-078-11W6/00	558	Birchcliff Enrg Ltd	TRmontney	4/13/2018	100/07-30-050-22W5/00	12.4	Tourmaline Oil Corp	Kcardium	11/22/2017
100/02-17-072-08W6/00	536	Cdn Nat Rsrcls Ltd	TRmontney	9/8/2017	103/01-35-077-15W6/00	12.0	Encana Corp	TRmontney	5/1/2018
100/11-17-081-16W6/00	526	ARC Rsrcls Ltd	TRmontney	5/1/2018	100/08-35-077-15W6/00	12.0	Encana Corp	TRmontney	5/1/2018
100/12-17-081-16W6/00	517	ARC Rsrcls Ltd	TRmontney	5/1/2018	100/13-16-077-14W6/00	11.8	Encana Corp	TRmontney	5/1/2018
100/11-08-014-25W4/00	515	Rampart Oil Inc	Kmannvl	9/1/2017	100/08-03-080-18W6/00	11.6	Shell Cda Ltd	TRmontney	4/1/2018

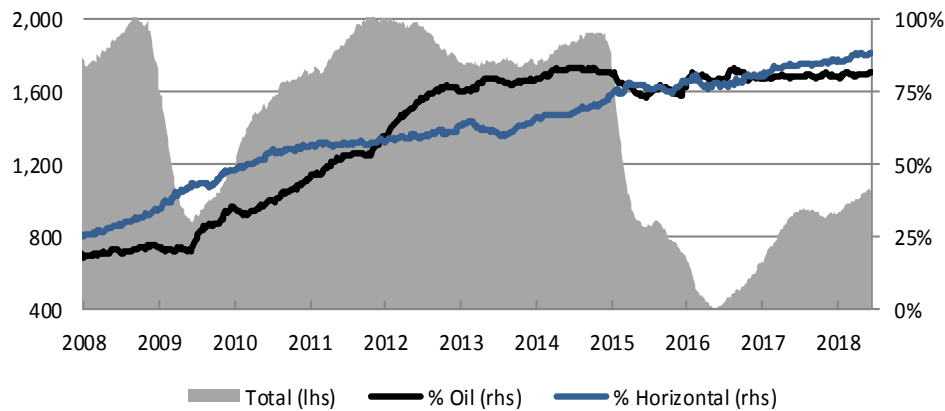
Source: GeoScout, Canaccord Genuity.

- In Figure 18, we highlight the best producing oil and gas wells in the WCSB, in June.
- On the CDR oil side, and note worthy to our coverage, Surge hold the top spot with its 16-12 Doig well that produced 642 bbl/d. Additionally, CNRL holds one top spot with its 02-17 Montney well that produced 536 bbl/d and Birchcliff holds a top spot with its 08-02 Montney well that produced 558 bbl/d in June. Wells targeting the Montney hold six of the 10 top spots in June, highlighting the increasing oil production from the formation.
- On the CDR gas side, and note worthy to our coverage, Cenovus holds a top spot with its 13-18 Wilrich well that produced 13.6 mmcf/d, and Encana holds three top spots with its Montney wells that produced from 11.8 mmcf/d to 12 mmcf/d bbl/d, in June.

Rig Count

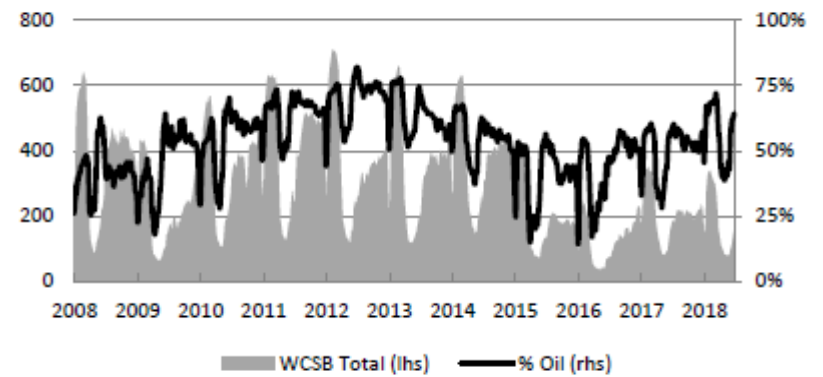
- The WCSB rig count increased 17 w/w. The active fleet of 228 was up 6% from prior year levels.
- The US rig count fell 13 (to 1,044 active) after being unchanged in the prior week. The US oil directed rig count fell nine to 860. Meanwhile, the gas directed rig count fell four to 182.
- The Permian rig count fell one w/w to 485.

Figure 20: US rig count



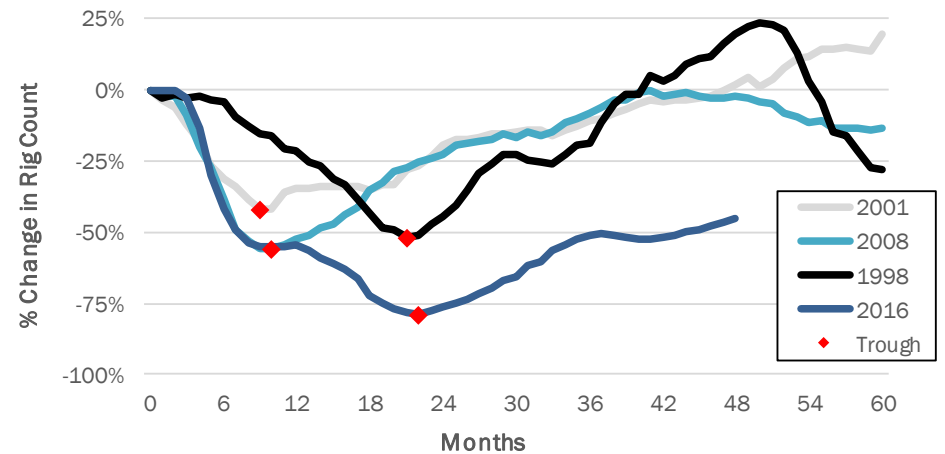
Source: Baker Hughes

Figure 19: WCSB rig count



Source: Baker Hughes

Figure 21: Historical US rig count cyclical declines (peak to trough)



Source: Baker Hughes

WCSB Drilling Activity – Operators and Contract Drillers

Figure 22: Average Active Rigs – E&P (Week of 8/24)

Seniors	Aug. 24	Prior	
	2018	Week	Year
CNRL	13.6 ↓	15.2	7.6
Encana	8.4 ↓	10.8	9.4
Husky	8.4 ↑	7.6	5.8
Seven Generations	7.0	7.0	5.4
Devon	3.0	3.0	2.0
Chevron	2.0	2.0	2.0
Conocophillips	2.0	2.0	1.0
Murphy	2.0	2.0	2.0
XTO Energy Canada	2.0 ↓	3.0	2.0
Cenovus	1.0 ↓	1.6	4.4
Nexen	1.0	1.0	0.0
Shell	1.0 ↓	2.0	3.8
Sinopec	1.0	1.0	1.0
Juniors & Intermediates			
Crescent Point	17.2	17.2	12.0
Tourmaline	14.0 ↑	13.4	17.0
Whitecap	8.0 ↓	8.4	10.0
Raging River	6.0 ↑	5.8	2.8
Baytex	5.0 ↑	4.0	0.0
Peyto	4.0	4.0	8.0
Teine	4.0 ↑	3.6	3.6
Vermilion	4.0 ↑	3.4	2.0
Vesta	4.0	4.0	4.0
Bonavista	3.0	3.0	4.0

Source: JuneWarren-Nickle's

- CNRL, Encana and Husky were the most active seniors.
- Crescent Point and Tourmaline were the most active intermediate E&Ps.
- Western was the most active driller in our coverage universe in Canada while Precision was most active in the US.
- In our OFS chart of the week, we highlight current valuation multiples for the CG Consensus Oilfield Universe.

Figure 23: Driller Average Active Rigs & Utilization (Week of 8/24)

Driller	WCSB			US	
	Aug. 24	Prior	Year	Aug. 24	Prior
	2018	Week	Year	2018	Week
Akita Drilling	4 / 17% ↓	6 / 26%	7 / 27%	--	--
Ensign Drilling	17 / 32% ↓	18 / 33%	22 / 39%	42 / 61% ↑	40 / 58%
Nabors Drilling	21 / 48% ↑	17 / 40%	13 / 27%	108 / 48% ↑	107 / 47%
Precision Drilling	53 / 40% ↓	55 / 41%	46 / 34%	77 / 75%	77 / 75%
Total Energy Services	24 / 30% ↑	21 / 26%	22 / 46%	10 / 40%	10 / 40%
Trinidad Drilling	29 / 43% ↑	28 / 41%	27 / 39%	43 / 63% ↑	42 / 62%
Western	23 / 46% ↑	21 / 42%	20 / 40%	4 / 67% ↑	3 / 50%
Industry Average	213 / 35% ↑	208 / 34%	211 / 33%	1,044 ↓	1057

Source: JuneWarren-Nickle's, Rigdata

Figure 24: Chart of the Week

CG Consensus Oilfield Universe Segment EV/EBITDA Multiples

Oilfield Segment	Median EV/EBITDA		
	2017A	2018E	2019E
Contract Drillers (4)	8.7x	7.7x	5.9x
Pressure Pumpers (3)	6.7x	5.8x	4.5x
Multi-line Services (8)	10.1x	7.8x	6.0x
Oilfield Equipment & Supply (7)	11.1x	10.3x	5.6x
Directional Drillers (2)	7.1x	4.7x	3.4x
Median (24)	9.8x	7.5x	5.5x

Source: Factset, Canaccord Genuity

Week-over-week estimate changes

Figure 25: Week-over-week estimate changes (Changes as of 08-27-2018)

Company	Ticker	Analyst	Target		Change %	Rating		Change	CG deck	Futures	2018E		Change %	2019E		Change %	2018E		Change %	2019E		Change %
			Current	Prior		Current	Prior		2P NAV	CFPS	Current	Prior		Current	Prior		Prod. (mboe/d)	Current		Prior	Prod. (mboe/d)	
Seniors (>50 mboe/d)																						
Canadian Natural Resources Ltd.	CNQ	DF	\$60.00	\$60.00		BUY	BUY		\$41.93	\$23.55	\$8.07	\$8.07		\$8.65	\$8.65		1,099.4	1,099.4		1,140.8	1,140.8	
Cenovus Energy Inc.	CVE	DF	\$15.00	\$15.00		HOLD	HOLD		\$14.07	\$5.25	\$2.20	\$2.20		\$2.65	\$2.65		498.1	498.1		490.6	490.6	
Encana Corp.	ECA	DF	US\$19.00	US\$19.00		BUY	BUY		US\$7.72	US\$4.90	US\$2.04	US\$2.04		US\$3.08	US\$3.08		359.9	359.9		419.5	419.5	
Husky Energy Inc.	HSE	DF	\$25.00	\$25.00		HOLD	HOLD		\$21.22	\$17.67	\$4.84	\$4.84		\$5.07	\$5.07		303.9	303.9		321.2	321.2	
Imperial Oil Ltd.	IMO	DF	\$50.00	\$50.00		HOLD	HOLD		\$51.07	\$32.88	\$5.82	\$5.82		\$6.67	\$6.67		364.4	364.4		386.4	386.4	
Suncor Energy Inc.	SU	DF	\$67.00	\$67.00		BUY	BUY		\$58.75	\$47.49	\$6.77	\$6.77		\$8.62	\$8.62		739.7	739.7		838.0	838.0	
Average Seniors																						
0%																						
Mid-Caps (10-50 mboe/d)																						
Baytex Energy Corp.	BTE	DF	\$7.00	\$7.00		BUY	BUY		\$2.13	\$0.71	\$1.46	\$1.46		\$1.72	\$1.72		79.0	79.0		97.1	97.1	
Birchcliff Energy Ltd.	BIR	DF	\$6.50	\$6.50		BUY	BUY		\$3.40	\$1.97	\$1.19	\$1.19		\$1.66	\$1.66		77.2	77.2		81.8	81.8	
Crescent Point Energy Corp.	CPG	AP	\$15.00	\$15.00		BUY	BUY		\$15.75	\$8.33	\$3.68	\$3.68		\$4.20	\$4.20		177.1	177.1		184.8	184.8	
Enerplus Corp.	ERF	DF	\$21.00	\$21.00		BUY	BUY		\$8.01	\$6.59	\$2.85	\$2.85		\$3.70	\$3.70		91.7	91.7		102.4	102.4	
Freehold Royalties Ltd.	FRU	DF	\$17.00	\$17.00		BUY	BUY		\$14.01	\$13.78	\$1.19	\$1.19		\$1.38	\$1.38		11.8	11.8		12.1	12.1	
Peyto Exploration & Development Corp.	PEY	AP	\$18.00	\$18.00		BUY	BUY		\$8.53	\$3.26	\$3.05	\$3.05		\$2.81	\$2.81		94.7	94.7		95.5	95.5	
PrairieSky Royalty Ltd.	PSK	DF	\$29.00	\$29.00		BUY	BUY		\$20.00	\$19.76	\$1.07	\$1.07		\$1.32	\$1.32		23.7	23.7		25.3	25.3	
Vermilion Energy Inc.	VET	DF	\$60.00	\$60.00		BUY	BUY		\$35.16	\$35.90	\$6.41	\$6.41		\$8.70	\$8.70		87.4	87.4		104.1	104.1	
Whitecap Resources Ltd.	WCP	AP	\$13.00	\$13.00		BUY	BUY		\$9.54	\$6.03	\$1.90	\$1.90		\$2.02	\$2.02		74.5	74.5		77.2	77.2	
Average >50 mboe/d																						
0%																						
Mid-Caps (10-50 mboe/d)																						
Athabasca Oil Corp.	ATH	DF	\$2.75	\$2.75		SPEC BUY	SPEC BUY		\$0.65	n.a.	\$0.26	\$0.26		\$0.57	\$0.57		41.2	41.2		48.5	48.5	
BlackPearl Resources Inc.	PXX	SR	\$1.75	\$1.75		BUY	BUY		\$2.98	\$2.83	\$0.21	\$0.21		\$0.44	\$0.44		11.6	11.6		16.1	16.1	
Bellatrix Exploration Ltd.	BXE	AP	\$1.25	\$1.25		HOLD	HOLD		\$3.25	n.a.	\$0.80	\$0.80		\$0.31	\$0.31		35.1	35.1		32.1	32.1	
Bonterra Energy Corp.	BNE	AP	\$22.50	\$22.50		BUY	BUY		\$15.25	\$6.73	\$3.92	\$3.92		\$4.64	\$4.64		13.3	13.3		14.1	14.1	
Cardinal Energy Ltd.	CJ	SR	\$6.50	\$6.50		BUY	BUY		\$7.44	\$6.22	\$1.00	\$1.00		\$1.55	\$1.55		21.0	21.0		21.3	21.3	
Crew Energy Inc.	CR	AP	\$4.00	\$4.00		BUY	BUY		\$3.54	\$0.29	\$0.64	\$0.64		\$0.74	\$0.74		23.8	23.8		26.2	26.2	
NuVista Energy Ltd.	NVA	SR	\$11.00	\$11.00		BUY	BUY		\$6.24	\$5.29	\$1.39	\$1.47	-6%	\$1.76	\$1.80	-3%	41.0	37.1	10%	56.6	41.5	36%
Painted Pony Energy Ltd.	PONY	AP	\$4.00	\$4.00		SPEC BUY	SPEC BUY		\$6.45	\$1.17	\$0.91	\$0.91		\$0.86	\$0.86		60.0	60.0		60.8	60.8	
Pengrowth Energy Corp.	PGF	DF	\$1.00	\$1.00		HOLD	HOLD		\$0.48	n.a.	\$0.13	\$0.13		\$0.24	\$0.24		22.4	22.4		22.1	22.1	
Pine Cliff Energy Ltd.	PNE	AP	\$0.60	\$0.60		BUY	BUY		\$0.22	\$0.08	\$0.04	\$0.04		\$0.12	\$0.12		19.6	19.6		20.1	20.1	
Obsidian Energy Ltd.	OBE	SR	\$1.80	\$1.80		SPEC BUY	SPEC BUY		\$2.79	\$2.58	\$0.28	\$0.28		\$0.46	\$0.46		29.6	29.6		32.7	32.7	
Raging River Exploration Inc.	RRX	AP	\$6.50	\$6.50		HOLD	HOLD		\$6.85	\$4.47	\$1.73	\$1.73		\$1.98	\$1.98		25.1	25.1		27.8	27.8	
Surge Energy Inc.	SGY	AP	\$3.75	\$3.75		BUY	BUY		\$3.75	\$1.89	\$0.60	\$0.60		\$0.86	\$0.86		17.0	17.0		18.0	18.0	
Tamarack Valley Energy Ltd.	TVE	AP	\$5.50	\$5.50		BUY	BUY		\$2.54	\$0.98	\$1.03	\$1.03		\$1.29	\$1.29		23.7	23.7		25.2	25.2	
TORC Oil & Gas Ltd.	TOG	AP	\$11.00	\$11.00		BUY	BUY		\$7.25	\$2.65	\$1.50	\$1.50		\$1.80	\$1.80		25.1	25.1		28.8	28.8	
Average mid-caps																						
-6%																						
Small Caps (<10 mboe/d)																						
Abraxas Petroleum Corp.	AXAS	SR	US\$3.50	US\$3.50		BUY	BUY		US\$2.98	US\$2.33	US\$0.58	US\$0.58		US\$0.82	US\$0.82		11.0	11.0		13.4	13.4	
Chinook Energy Inc.	CKE	AP	\$0.35	\$0.35		SPEC BUY	SPEC BUY		\$0.27	\$0.12	\$0.04	\$0.04		\$0.07	\$0.07		4.1	4.1		4.4	4.4	
Gear Energy Ltd.	GXE	SR	\$1.75	\$1.75		SPEC BUY	SPEC BUY		\$1.73	\$1.66	\$0.30	\$0.30		\$0.48	\$0.48		7.6	7.6		9.8	9.8	
InPlay Oil Corp.	IPO	SR	\$2.75	\$2.75		BUY	BUY		\$3.89	\$3.60	\$0.55	\$0.55		\$0.85	\$0.85		4.6	4.6		5.1	5.1	
Journey Energy Inc.	JOY	SR	\$1.80	\$1.80		HOLD	HOLD		\$8.59	\$7.93	\$0.63	\$0.63		\$1.28	\$1.28		10.1	10.1		10.2	10.2	
Leucrotta Exploration Inc.	LXE	AP	\$2.00	\$2.00		HOLD	HOLD		\$0.77	\$0.50	\$0.10	\$0.10		\$0.10	\$0.10		3.7	3.7		4.2	4.2	
PetroShale Inc.	PSH	SR	\$3.00	\$3.00		BUY	BUY		\$2.44	\$2.21	\$0.41	\$0.41		\$0.92	\$0.92		6.2	6.2		12.7	12.7	
Iron Bridge Resources Inc.	IBR	AP	\$0.80	\$0.80		HOLD	HOLD		\$0.75	\$0.33	\$0.06	\$0.06		\$0.15	\$0.15		2.4	2.4		4.0	4.0	
Razor Energy Corp.	RZE	SR	\$3.50	\$3.50		SPEC BUY	SPEC BUY		\$9.52	\$8.93	\$1.65	\$1.65		\$2.09	\$2.09		5.0	5.0		5.4	5.4	
Yangarra Resources Ltd.	YGR	SR	\$7.00	\$7.00		SPEC BUY	SPEC BUY		\$7.57	\$6.36	\$1.04	\$1.04		\$1.84	\$1.84		9.0	9.0		13.5	13.5	
Average small caps																						
0%																						

Source: Company Reports, Canaccord Genuity estimates.

Figure 26: Comparables; Ratings, targets, valuation multiples (2018 CG Price Deck: US\$65.00/bbl WTI, C\$75/bbl EdPar, US\$2.91/mcf Nymex, C\$1.69/mcf AECO)

August 27, 2018	Ratings and targets							Capitalization		NAV multiples		NAV Multiples				CG deck			DACF multiples							
	Company	Ticker	Exch	Analyst	Price	Target	Rating	Yield	Implied Return	Debt to EV %	2P NAV CG deck NAV	2P NAV CG deck P/NAV	2P NAV CG deck Tg/NAV	2P NAV Futures P/NAV	2P NAV Futures Tg/NAV	Contingent NAV CG deck P/NAV	Contingent NAV CG deck Tg/NAV	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
Senior E&Ps / Integrated																										
Canadian Natural Resources Ltd.	CNQ	TSX	DF	\$46.17	\$60.00	BUY	3%	33%	27%	\$41.93	1.1x	1.4x	2.0x	2.5x	0.8x	1.0x	10.3x	7.3x	6.5x	10.3x	7.3x	6.5x	10.3x	7.0x	6.6x	
Cenovus Energy Inc.	CVE	TSX	DF	\$12.70	\$15.00	HOLD	2%	20%	35%	\$14.07	0.9x	1.1x	2.4x	2.9x	0.8x	0.9x	6.8x	7.3x	6.1x	6.5x	5.1x	6.0x	6.8x	8.2x	6.6x	
Encana Corp.	ECA	NYSE	DF	US\$13.07	US\$19.00	BUY	0%	46%	25%	\$7.72	1.7x	2.5x	2.7x	3.9x	0.7x	1.0x	10.2x	7.4x	4.9x	11.1x	6.3x	5.0x	10.2x	6.9x	4.8x	
Husky Energy Inc.	HSE	TSX	DF	\$21.91	\$25.00	HOLD	1%	16%	8%	\$21.22	1.0x	1.2x	1.2x	1.4x	0.9x	1.0x	6.9x	4.8x	4.3x	6.9x	4.8x	4.3x	6.9x	4.7x	4.3x	
Imperial Oil Ltd.	IMO	TSX	DF	\$41.54	\$50.00	HOLD	2%	22%	10%	\$51.07	0.8x	1.0x	1.3x	1.5x	0.7x	0.9x	12.9x	7.5x	6.5x	12.9x	7.5x	6.5x	12.9x	7.2x	6.7x	
Suncor Energy Inc.	SU	TSX	DF	\$54.16	\$67.00	BUY	3%	26%	14%	\$58.75	0.9x	1.1x	1.1x	1.4x	0.8x	1.0x	11.4x	8.3x	6.3x	11.4x	8.3x	6.3x	11.4x	8.0x	6.4x	
Avg Seniors							2%	27%	20%		1.1x	1.4x	1.8x	2.3x	0.8x	1.0x	9.7x	7.1x	5.8x	9.9x	6.5x	5.8x	9.7x	7.0x	5.9x	
Midcaps (>50 mboe/d)																										
Baytex Energy Corp.	BTE	TSX	DF	\$4.31	\$7.00	BUY	0%	62%	47%	\$2.13	2.0x	3.3x	1.3x	9.9x	0.6x	0.9x	9.4x	7.1x	4.2x	9.6x	6.3x	4.1x	9.4x	7.0x	4.3x	
Birchcliff Energy Ltd.	BIR	TSX	DF	\$5.12	\$6.50	BUY	2%	29%	31%	\$3.40	1.5x	1.9x	2.6x	3.3x	0.7x	0.9x	5.8x	5.7x	3.9x	6.3x	5.8x	4.4x	5.8x	4.8x	3.9x	
Crescent Point Energy Corp.	CPG	TSX	AP	\$8.57	\$15.00	BUY	4%	79%	46%	\$15.75	0.5x	1.0x	1.0x	1.8x	0.6x	1.1x	4.6x	4.0x	3.4x	4.9x	5.0x	4.8x	4.5x	3.9x	3.5x	
Enbridge Energy Services Ltd.	ERF	TSX	DF	\$16.55	\$21.00	BUY	1%	28%	11%	\$8.01	2.1x	2.6x	2.5x	3.2x	0.8x	1.1x	8.1x	6.0x	4.4x	8.0x	5.8x	4.4x	8.1x	5.8x	4.5x	
Freehold Royalties Ltd.	FRU	TSX	DF	\$12.18	\$17.00	BUY	5%	45%	4%	\$14.01	0.9x	1.2x	0.9x	1.2x	0.7x	1.0x	12.0x	10.4x	8.6x	12.0x	10.4x	8.6x	12.0x	9.7x	8.6x	
Peyto Exploration & Development Corp.	PEY	TSX	AP	\$11.06	\$18.00	BUY	7%	69%	40%	\$8.53	1.3x	2.1x	3.4x	5.5x	0.8x	1.3x	4.9x	5.4x	6.1x	4.6x	3.8x	4.0x	4.8x	5.3x	6.8x	
PrairieSky Royalty Ltd.	PSK	TSX	DF	\$24.27	\$29.00	BUY	3%	23%	0%	\$20.00	1.2x	1.5x	1.2x	1.5x	0.8x	1.0x	19.5x	22.4x	17.9x	19.5x	22.4x	17.9x	19.5x	20.8x	17.7x	
Vermilion Energy Inc.	VET	TSX	DF	\$41.82	\$60.00	BUY	6%	50%	20%	\$35.16	1.2x	1.7x	1.2x	1.7x	1.1x	1.0x	11.8x	8.2x	5.5x	11.9x	7.4x	5.3x	11.8x	7.8x	5.3x	
Whitecap Resources Ltd.	WCP	TSX	AP	\$8.69	\$13.00	BUY	4%	53%	26%	\$9.54	0.9x	1.4x	1.4x	2.2x	0.7x	1.1x	9.1x	5.7x	5.2x	9.5x	9.1x	8.7x	9.1x	5.4x	5.3x	
Avg >50 mboe/d							3%	53%	31%		1.4x	2.0x	1.9x	3.9x	0.7x	1.0x	7.7x	6.0x	4.6x	7.8x	6.2x	5.1x	7.7x	5.7x	4.8x	
Jr & Intermediates (10-50 mboe/d)																										
Athabasca Oil Corp.	ATH	TSX	DF	\$1.56	\$2.75	SPEC BUY	0%	76%	35%	\$0.65	2.4x	4.2x	n.a.	n.a.	0.6x	1.1x	7.8x	6.4x	3.2x	7.8x	6.3x	3.2x	7.8x	7.0x	4.0x	
BlackPearl Resources Inc.	PXX	TSX	SR	\$1.32	\$1.75	BUY	0%	33%	23%	\$2.98	0.4x	0.6x	0.5x	0.6x	0.6x	0.6x	9.0x	7.4x	3.1x	9.0x	5.9x	3.0x	9.0x	6.5x	3.1x	
Bellatrix Exploration Ltd.	BXE	TSX	AP	\$1.27	\$1.25	HOLD	0%	-2%	85%	\$3.25	0.4x	0.4x	n.a.	n.a.	0.9x	0.9x	5.5x	6.2x	8.9x	4.7x	5.2x	5.4x	5.4x	5.9x	11.4x	
Bonterra Energy Corp.	BNE	TSX	AP	\$19.98	\$22.50	BUY	6%	19%	33%	\$15.25	1.3x	1.5x	3.0x	3.3x	1.0x	1.1x	8.3x	6.6x	5.6x	8.0x	8.1x	7.7x	8.3x	6.3x	5.8x	
Cardinal Energy Ltd.	CJ	TSX	SR	\$5.42	\$6.50	BUY	8%	28%	29%	\$7.44	0.7x	0.9x	0.9x	1.0x	0.7x	0.9x	9.9x	6.9x	4.3x	8.4x	5.1x	4.3x	9.9x	6.8x	4.6x	
Crew Energy Inc.	CR	TSX	AP	\$2.06	\$4.00	BUY	0%	94%	51%	\$3.54	0.6x	1.1x	7.0x	13.7x	0.5x	0.9x	5.4x	5.3x	5.1x	5.1x	3.7x	4.0x	5.4x	5.0x	5.6x	
NuVista Energy Ltd.	NVA	TSX	SR	\$7.90	\$11.00	BUY	0%	39%	22%	\$6.24	1.3x	1.8x	1.5x	2.1x	0.8x	1.1x	9.3x	7.5x	5.4x	9.5x	6.9x	5.2x	9.3x	7.5x	5.4x	
Painted Pony Energy Ltd.	PONY	TSX	AP	\$3.02	\$4.00	SPEC BUY	0%	32%	43%	\$6.45	0.5x	0.6x	2.6x	3.4x	0.4x	0.5x	6.6x	5.0x	5.3x	5.3x	2.8x	2.8x	6.5x	4.9x	6.3x	
Pengrowth Energy Corp.	PGF	TSX	DF	\$0.92	\$1.00	HOLD	0%	9%	59%	\$0.48	1.9x	2.1x	n.a.	n.a.	0.9x	1.0x	8.4x	9.9x	6.5x	6.0x	7.2x	6.7x	8.4x	8.9x	6.9x	
Obsidian Energy Ltd.	OBE	TSX	SR	\$1.40	\$1.80	SPEC BUY	0%	29%	39%	\$2.79	0.5x	0.6x	0.5x	0.7x	0.5x	0.7x	6.1x	9.4x	4.7x	7.4x	6.1x	4.3x	6.1x	7.0x	4.2x	
Pine Cliff Energy Ltd.	PNE	TSX	AP	\$0.38	\$0.60	BUY	0%	58%	32%	\$0.22	1.7x	2.7x	5.0x	7.9x	1.1x	1.7x	5.4x	13.9x	4.5x	3.4x	3.3x	3.1x	5.0x	13.6x	6.2x	
Raging River Exploration Inc.	RRX	TSX	AP	\$5.99	\$6.50	HOLD	0%	9%	17%	\$6.85	0.9x	0.9x	1.3x	1.5x	0.8x	0.9x	5.8x	4.0x	3.3x	5.9x	5.7x	5.3x	5.8x	3.8x	3.4x	
Surge Energy Inc.	SGY	TSX	AP	\$2.34	\$3.75	BUY	4%	64%	33%	\$3.75	0.6x	1.0x	1.2x	2.0x	0.7x	1.1x	6.5x	5.2x	3.4x	6.8x	6.7x	6.0x	6.5x	4.9x	3.5x	
Tamarack Valley Energy Ltd.	TVE	TSXV	AP	\$5.09	\$5.50	BUY	0%	8%	15%	\$3.82	1.3x	1.4x	5.2x	5.6x	0.9x	1.0x	8.1x	5.4x	4.2x	8.9x	8.3x	7.8x	8.0x	5.3x	4.3x	
TORC Oil & Gas Ltd.	TOG	TSX	AP	\$7.59	\$11.00	BUY	3%	48%	20%	\$7.25	1.0x	1.5x	2.9x	4.1x	0.8x	1.1x	8.7x	6.2x	4.6x	9.3x	9.4x	8.8x	8.7x	5.9x	4.8x	
Avg 10-50 mboe/d							1%	36%	36%		1.0x	1.4x	2.6x	3.8x	0.7x	1.0x	7.4x	7.0x	4.8x	7.0x	6.0x	5.2x	7.3x	6.6x	5.3x	
Smallcaps (<10 mboe/d)																										
Abxax Petroleum Corp.	AXAS	NASDAQ	SR	US\$2.17	US\$3.50	BUY	0%	61%	31%	\$2.98	0.7x	1.2x	0.9x	1.5x	0.6x	1.0x	8.9x	5.0x	3.3x	10.1x	4.2x	3.1x	8.9x	4.8x	3.2x	
Chinook Energy Inc.	CKE	TSX	AP	\$0.23	\$0.35	SPEC BUY	0%	52%	3%	\$0.27	0.9x	1.3x	1.9x	2.9x	0.7x	1.0x	6.8x	6.1x	3.8x	5.1x	2.1x	2.6x	6.8x	5.5x	4.4x	
Gear Energy Ltd.	GXE	TSX	SR	\$1.21	\$1.75	SPEC BUY	0%	45%	24%	\$1.73	0.7x	1.0x	0.7x	1.1x	0.7x	1.0x	6.7x	5.4x	2.7x	6.5x	4.6x	2.7x	6.7x	5.1x	2.9x	
InPlay Oil Corp.	IPO	TSX	SR	\$1.51	\$2.75	BUY	0%	82%	36%	\$3.89	0.4x	0.7x	0.4x	0.8x	0.4x	0.7x	5.8x	3.9x	2.4x	6.0x	3.5x	2.4x	5.8x	3.7x	2.6x	
Journey Energy Inc.	JOY	TSX	SR	\$1.65	\$1.80	HOLD	0%	9%	67%	\$8.59	0.2x	0.2x	0.2x	0.2x	0.2x	0.2x	5.1x	5.2x	3.5x	5.4x	4.2x	3.2x	5.1x	5.8x	4.0x	
Leucrotta Exploration Inc.	LXE	TSXV	AP	\$1.90	\$2.00	HOLD	0%	5%	-3%	\$0.77	2.5x	2.6x	3.8x	4.0x	1.1x	1.1x	n.a.	18.1x	18.6x	n.a.	n.a.	n.a.	n.a.	n.a.	17.3x	n.a.
PetroShale Inc.	PSH	TSXV	SR	\$1.80	\$3.00	BUY	0%	67%	34%	\$2.44	0.7x	1.2x	0.8x	1.4x	0.6x	1.1x	n.a.	6.3x	2.4x	n.a.	5.9x	2.4x	n.a.	n.a.	6.1x	2.5x
Razor Energy Corp.	RZE	TSXV	SR	\$2.95	\$3.50	SPEC BUY	0%	19%	48%	\$9.52	0.3x	0.3x	0.3x	0.4x	0.3x	0.4x	7.3x	2.9x	2.2x	7.4x	2.5x	2.1x	7.3x	2.5x	2.0x	
Iron Bridge Resources Inc.	IBR	TSX	AP	\$0.72	\$0.80	HOLD	0%	11%	10%	\$0.75	1.0x	1.1x	2.2x	2.5x	n.a.	n.a.	n.a.	14.3x	6.8x	5.1x	4.4x	5.3x	n.a.	11.7x	7.2x	
Yangarra Resources Ltd.	YGR	TSX	SR	\$4.68	\$7.00	SPEC BUY	0%	50%	24%	\$7.57	0.6x	0.9x	0.7x	1.1x	0.6x	0.9x	8.8x	5.5x	3.0x	9.3x	5.0x	3.0x	8.8x	5.4x	2.9x	
Avg <10 mboe/d							0%	40%	28%		0.8x	1.1x	1.2x	1.6x	0.6x	0.8x	7.1x	7.3x	4.9x	6.9x	4.1x	3.0x	7.1x	6.8x	3.5x	

Notes: Analyst initials AP for Anthony Petrucci, DF for Dennis Fong, SR for Sam Roach, JX for Jenny Xenos; "R" = Restricted, (Source: Company Reports, Canaccord Genuity estimates).

Source: Company Reports, FaceSet, Canaccord Genuity estimates.

Figure 27: Comparables; Leverage, liquidity, production, growth and hedging

Ticker	Leverage						Liquidity		Production						Growth						Hedging					
	Net debt to cash flow						Credit capacity \$MM	% drawn Incl. WC	Production			EV/boe/d			Natural gas weight %			Production growth			DAPPS growth			Hedged prod'n %		
	2017A	CG deck		2019E	2017A	2018E			2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E
Senior E&Ps / Integrates																										
CNOQ	3.2x	2.0x	1.5x	3.2x	1.9x	1.9x	\$11,050	1%	962.3	1099.4	1140.8	\$81,300	\$69,563	\$63,128	29%	24%	24%	19%	14%	4%	13%	10%	4%	2%	4%	0%
CVE	2.9x	2.9x	2.0x	2.9x	3.4x	3.4x	\$4,500	0%	470.5	498.1	490.6	\$51,413	\$47,134	\$45,001	23%	18%	18%	73%	6%	-1%	31%	-5%	-1%	51%	30%	4%
ECA	2.7x	2.0x	1.1x	2.7x	1.8x	1.8x	US\$4,500	12%	313.2	359.9	419.5	\$51,259	US\$45,459	US\$37,288	59%	54%	54%	-11%	15%	17%	-11%	16%	17%	61%	120%	90%
HSE	0.9x	0.4x	0.2x	0.9x	0.3x	0.3x	\$4,850	0%	322.9	303.9	321.2	\$80,886	\$81,495	\$73,781	28%	27%	27%	0%	-6%	6%	0%	-6%	6%	0%	0%	0%
IMO	1.4x	0.6x	0.2x	1.4x	0.5x	0.5x	\$8,000	0%	375.3	364.4	386.4	\$97,585	\$97,891	\$88,448	5%	6%	6%	-3%	-3%	6%	-2%	2%	9%	0%	0%	0%
SU	1.5x	1.2x	0.6x	1.5x	1.1x	1.1x	\$4,489	20%	685.3	739.7	838.0	\$147,298	\$136,121	\$113,829	0%	0%	0%	10%	8%	13%	7%	10%	13%	0%	0%	0%
Avg Seniors	2.1x	1.5x	0.9x	2.1x	1.5x	1.5x		6%				\$84,957	\$79,610	\$70,246	24%	21%	21%	15%	6%	7%	6%	5%	8%	19%	26%	16%
Midcaps (>50 mboe/d)																										
BTE	5.1x	4.2x	2.1x	5.1x	4.1x	4.1x	\$742	77%	70.2	79.0	97.1	\$58,319	\$57,491	\$44,877	20%	18%	18%	1%	13%	23%	-21%	-10%	6%	31%	11%	5%
BIR	1.9x	1.8x	0.9x	1.9x	1.4x	1.4x	\$950	67%	68.0	77.2	81.8	\$29,439	\$25,485	\$21,995	79%	80%	80%	38%	14%	6%	9%	3%	19%	16%	31%	49%
CPG	2.4x	1.9x	1.6x	2.4x	1.9x	1.6x	\$3,600	50%	176.0	177.1	184.8	\$49,686	\$48,614	\$44,931	10%	10%	10%	5%	1%	4%	-16%	2%	8%	32%	35%	27%
ERF	0.8x	0.5x	0.1x	0.8x	0.5x	0.5x	\$800	0%	84.7	91.7	102.4	\$52,653	\$48,409	\$40,452	52%	47%	47%	-9%	8%	12%	-8%	11%	21%	32%	36%	23%
FRU	0.6x	0.3x	n.a.	0.6x	0.2x	0.2x	\$180	33%	12.3	11.8	12.1	\$123,042	\$125,492	\$115,083	45%	45%	45%	1%	-4%	3%	-5%	-3%	9%	0%	0%	0%
PEY	2.1x	2.4x	2.8x	2.1x	2.3x	3.2x	\$1,300	52%	102.6	94.7	95.5	\$29,391	\$31,825	\$32,750	91%	90%	90%	6%	-8%	1%	-3%	-11%	0%	73%	69%	22%
PSK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	\$225	0%	25.3	23.7	25.3	\$223,750	\$238,979	\$221,773	52%	52%	52%	8%	-6%	7%	5%	-6%	8%	0%	0%	n.a.
WET	2.2x	1.7x	0.9x	2.2x	1.6x	1.6x	\$1,600	79%	68.0	87.4	104.1	\$112,946	\$91,103	\$72,877	53%	48%	48%	7%	28%	19%	2%	11%	17%	15%	33%	19%
WCP	2.6x	1.5x	1.1x	2.6x	1.3x	1.1x	\$1,700	38%	57.5	74.5	77.2	\$86,524	\$64,196	\$59,396	18%	15%	15%	25%	30%	4%	10%	22%	8%	32%	32%	15%
Avg >50 mboe/d	2.5x	2.0x	1.4x	2.4x	1.9x	1.9x		52%				\$59,851	\$52,446	\$45,326	46%	44%	44%	10%	12%	10%	-4%	4%	11%	33%	35%	23%
Jr & Intermediates (10-50 mboe/d)																										
ATH	3.8x	3.2x	1.1x	3.8x	3.7x	3.7x	\$120	0%	35.4	41.2	48.5	\$31,518	\$29,624	\$23,461	10%	14%	14%	196%	16%	18%	25%	8%	29%	86%	25%	0%
PXX	1.8x	1.8x	0.3x	1.8x	1.5x	0.2x	\$120	48%	9.7	11.6	16.1	\$56,876	\$49,458	\$30,070	1%	1%	1%	2%	20%	39%	-20%	22%	61%	0%	38%	25%
BXE	7.2x	9.5x	>10.0x	7.1x	8.6x	>10.0x	\$100	92%	36.9	35.1	32.1	\$13,541	\$14,590	\$16,554	75%	71%	71%	3%	-5%	-8%	-8%	-16%	-9%	53%	35%	0%
BNE	3.1x	2.3x	1.7x	3.1x	2.2x	1.8x	\$380	86%	12.8	13.3	14.1	\$76,912	\$72,859	\$65,950	31%	31%	31%	1%	4%	6%	-7%	7%	11%	0%	0%	0%
CJ	3.4x	2.2x	1.1x	3.4x	2.1x	1.2x	\$325	60%	18.7	21.0	21.3	\$47,848	\$41,536	\$38,120	16%	13%	13%	28%	12%	1%	-32%	15%	9%	0%	62%	7%
CR	3.2x	3.3x	3.3x	3.2x	3.1x	3.7x	\$235	13%	23.1	23.8	26.2	\$28,610	\$26,507	\$25,921	74%	74%	74%	1%	3%	10%	-26%	-29%	5%	55%	21%	14%
NVA	1.0x	1.7x	1.4x	1.0x	1.7x	1.4x	\$450	55%	29.7	41.0	56.6	\$66,639	\$55,467	\$41,297	61%	60%	60%	21%	38%	38%	13%	-1%	35%	0%	52%	18%
PONY	3.4x	2.5x	2.7x	3.3x	2.5x	3.4x	\$400	46%	42.9	60.0	60.8	\$19,824	\$14,353	\$14,028	92%	91%	91%	85%	40%	1%	-1%	24%	3%	72%	48%	27%
PGF	9.7x	9.6x	5.4x	9.7x	8.0x	8.0x	\$330	0%	40.4	22.4	22.1	\$29,266	\$54,310	\$54,753	38%	21%	21%	-29%	-45%	-1%	-10%	-53%	0%	70%	34%	0%
OBE	2.0x	3.2x	1.9x	2.0x	2.5x	1.5x	\$440	84%	31.7	29.6	32.7	\$34,453	\$39,429	\$35,218	38%	35%	35%	-42%	-7%	10%	-46%	-14%	12%	0%	53%	12%
PNE	2.0x	3.9x	1.2x	1.9x	3.9x	1.8x	\$11	238%	21.4	19.6	20.1	\$8,197	\$8,638	\$7,856	95%	94%	94%	-5%	-9%	3%	7%	-9%	5%	4%	0%	0%
RRX	1.1x	0.7x	0.4x	1.1x	0.6x	0.4x	\$500	58%	22.9	25.1	27.8	\$73,758	\$66,149	\$55,797	8%	7%	7%	28%	10%	11%	18%	11%	16%	2%	0%	0%
SGY	2.3x	1.8x	0.9x	2.3x	1.7x	0.9x	\$350	75%	14.9	17.0	18.0	\$49,951	\$46,871	\$39,724	20%	18%	18%	16%	14%	6%	-4%	9%	14%	41%	32%	0%
TVE	1.1x	0.7x	0.3x	1.1x	0.7x	0.4x	\$265	78%	20.1	23.7	25.2	\$66,248	\$56,144	\$49,881	40%	37%	37%	95%	18%	6%	5%	24%	13%	40%	24%	4%
TOG	1.3x	1.2x	0.6x	1.3x	1.1x	0.6x	\$500	83%	20.9	25.1	28.8	\$91,101	\$79,452	\$64,717	12%	12%	12%	12%	20%	15%	1%	12%	17%	11%	12%	0%
Avg 10-50 mboe/d	3.1x	3.2x	2.1x	3.1x	2.9x	2.6x		68%				\$46,316	\$43,692	\$37,556	41%	39%	39%	27%	9%	10%	-6%	1%	15%	29%	29%	7%
Smallcaps (<10 mboe/d)																										
AXAS	2.2x	1.5x	0.8x	2.2x	1.5x	0.7x	\$175	76%	7.4	11.0	13.4	\$63,950	US\$46,514	US\$35,345	24%	23%	23%	20%	48%	22%	2%	44%	29%	0%	38%	22%
CKE	0.2x	n.a.	0.7x	0.2x	n.a.	0.9x	\$18	10%	3.4	4.1	4.4	\$15,449	\$12,125	\$14,271	86%	85%	85%	-38%	20%	8%	-40%	4%	2%	45%	0%	0%
GXE	1.0x	1.3x	0.5x	1.0x	1.2x	0.5x	\$115	57%	6.5	7.6	9.8	\$46,988	\$44,982	\$32,096	14%	11%	11%	26%	16%	29%	18%	3%	31%	0%	18%	18%
IPO	2.1x	1.4x	0.7x	2.1x	1.3x	0.8x	\$75	67%	4.0	4.6	5.1	\$38,717	\$33,822	\$28,069	33%	29%	29%	105%	15%	12%	65%	11%	19%	0%	40%	0%
JOY	3.4x	5.1x	2.6x	3.4x	4.9x	3.2x	\$100	66%	10.0	10.1	10.2	\$16,679	\$19,120	\$18,949	54%	53%	53%	14%	1%	1%	-21%	-3%	1%	0%	34%	12%
LXE	n.a.	n.a.	0.4x	n.a.	n.a.	0.5x	\$20	0%	2.9	3.7	4.2	\$126,466	\$99,977	\$92,936	71%	71%	71%	176%	1%	12%	121%	26%	8%	0%	0%	0%
PSH	4.3x	2.5x	0.7x	4.3x	2.4x	0.7x	\$121	0%	2.4	6.2	12.7	\$177,259	\$85,423	\$37,096	23%	12%	12%	51%	153%	105%	123%	83%	127%	0%	21%	0%
RZE	3.4x	1.6x	1.1x	3.4x	1.3x	0.9x	\$45	0%	3.8	5.0	5.4	\$18,689	\$17,775	\$15,241	11%	13%	13%	n.a.	31%	9%	n.a.	39%	17%	0%	52%	9%
IBR	n.a.	2.1x	2.0x	n.a.	1.6x	2.1x	\$10	130%	3.3	2.4	4.0	\$27,224	\$54,051	\$39,651	68%	67%	67%	-58%	-27%	64%	-50%	-16%	33%	4%	0%	0%
YGR	1.8x	1.4x	0.5x	1.8x	1.4x	0.5x	\$150	77%	5.7	9.0	13.5	\$85,860	\$58,472	\$35,913	43%	40%	40%	94%	56%	51%	118%	46%	60%	0%	37%	3%
Avg <10 mboe/d	2.3x	2.1x	1.0x	2.3x	1.9x	1.1x		48%				\$67,235	\$47,226	\$34,957	40%	40%	40%	43%	34%	31%	37%	24%	33%	5%	24%	6%

Source: Company Reports, Canaccord Genuity estimates

Figure 28: Comparables; Cash flow, dividends, capex and payout ratios

Ticker	Cash flows and payout ratios																			
	Cash flow \$mm			CF growth %		Dividends \$/share			Dividend payout %			E&D Capex \$MM			Capex/cash flow %			Total payout ratio %		
	2017A	2018E	2019E	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
Senior E&Ps / Integrated																				
CNQ	\$6,963	\$9,914	\$10,596	42%	7%	\$1.08	\$1.29	\$1.34	18%	16%	15%	\$4,574	\$4,524	\$4,500	66%	46%	42%	84%	61%	58%
CVE	\$2,914	\$2,702	\$3,247	-7%	20%	\$0.20	\$0.20	\$0.20	8%	9%	8%	\$1,670	\$1,770	\$1,474	57%	66%	45%	57%	74%	53%
ECA	US\$1,303	US\$1,958	US\$2,943	50%	50%	US\$0.06	US\$0.06	US\$0.06	4%	3%	2%	US\$1,796	US\$1,758	US\$2,168	138%	90%	74%	142%	93%	76%
HSE	\$3,433	\$4,865	\$5,105	42%	5%	\$0.00	\$0.33	\$0.50	0%	7%	10%	\$2,220	\$2,979	\$3,496	65%	61%	68%	65%	68%	78%
IMO	\$2,763	\$4,686	\$5,228	70%	12%	\$0.63	\$0.73	\$0.76	19%	13%	11%	\$993	\$1,336	\$1,339	36%	29%	26%	55%	41%	37%
SU	\$9,139	\$11,110	\$14,151	22%	27%	\$1.28	\$1.44	\$1.44	23%	21%	17%	\$6,551	\$5,466	\$4,577	72%	49%	32%	95%	70%	48%
Avg Seniors																				
36% 20%																				
Midcaps (>50 mboe/d)																				
BTE	\$334	\$519	\$946	55%	82%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$326	\$571	\$760	98%	110%	80%	98%	110%	80%
BIR	\$309	\$319	\$443	3%	39%	\$0.10	\$0.10	\$0.10	9%	8%	6%	\$417	\$259	\$245	135%	81%	55%	144%	89%	61%
CPG	\$1,724	\$2,022	\$2,301	17%	14%	\$0.36	\$0.36	\$0.36	11%	10%	9%	\$1,855	\$1,783	\$1,800	108%	88%	78%	119%	98%	87%
ERF	\$511	\$712	\$927	39%	30%	\$0.12	\$0.12	\$0.12	6%	4%	3%	\$461	\$513	\$600	90%	72%	65%	96%	76%	68%
FRU	\$124	\$141	\$164	14%	16%	\$0.58	\$0.63	\$0.63	55%	53%	46%	\$5	\$4	\$4	4%	3%	2%	58%	55%	48%
PEY	\$574	\$502	\$464	-12%	-8%	\$1.32	\$0.72	\$0.72	38%	24%	26%	\$521	\$234	\$460	91%	47%	99%	129%	72%	125%
PSK	\$290	\$252	\$310	-13%	23%	\$0.75	\$0.78	\$0.78	61%	73%	59%	\$290	\$7	\$15	100%	3%	5%	160%	75%	64%
NET	\$593	\$913	\$1,342	54%	47%	\$2.58	\$2.72	\$2.76	53%	42%	32%	\$313	\$500	\$568	53%	55%	42%	86%	91%	72%
WCP	\$509	\$795	\$848	56%	7%	\$0.28	\$0.32	\$0.32	21%	17%	16%	\$340	\$449	\$515	67%	56%	61%	87%	73%	77%
Avg >50 mboe/d																				
30% 30%																				
Jr & Intermediates (10-50 mboe/d)																				
ATH	\$82	\$132	\$297	n.a.	n.a.	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$210	\$184	\$213	255%	140%	72%	255%	140%	72%
PXX	\$59	\$72	\$150	n.a.	n.a.	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$170	\$95	\$60	286%	133%	40%	286%	133%	40%
BXE	\$58	\$46	\$19	-21%	-58%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$123	\$50	\$40	212%	110%	207%	212%	110%	207%
BNE	\$102	\$131	\$155	28%	18%	\$1.20	\$1.20	\$1.20	39%	31%	26%	\$78	\$75	\$75	76%	58%	48%	115%	88%	74%
CJ	\$82	\$115	\$178	40%	56%	\$0.42	\$0.42	\$0.42	48%	42%	27%	\$69	\$55	\$70	84%	48%	39%	133%	91%	66%
CR	\$109	\$98	\$112	-10%	15%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$238	\$84	\$160	219%	86%	142%	219%	86%	142%
NVA	\$203	\$280	\$399	38%	43%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$315	\$338	\$465	155%	121%	117%	155%	121%	117%
PONV	\$107	\$148	\$138	38%	-7%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$303	\$153	\$130	282%	103%	94%	282%	103%	94%
PGF	\$69	\$74	\$130	6%	76%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$118	\$65	\$125	170%	88%	96%	170%	88%	96%
OBE	\$192	\$144	\$233	-25%	62%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$141	\$190	\$205	73%	132%	88%	73%	132%	88%
PNE	\$29	\$13	\$35	-54%	166%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$13	\$10	\$24	47%	75%	68%	47%	75%	68%
RRX	\$283	\$401	\$459	42%	15%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$372	\$373	\$350	132%	93%	76%	132%	93%	76%
SGY	\$103	\$140	\$198	36%	42%	\$0.09	\$0.10	\$0.10	20%	16%	12%	\$98	\$98	\$95	96%	70%	48%	115%	87%	60%
TVE	\$158	\$236	\$295	49%	25%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$187	\$228	\$222	118%	97%	75%	118%	97%	75%
TOG	\$209	\$309	\$388	48%	26%	\$0.24	\$0.25	\$0.26	22%	17%	15%	\$133	\$188	\$220	64%	61%	57%	77%	72%	66%
Avg 10-50 mboe/d																				
16% 37%																				
Smallcaps (<10 mboe/d)																				
AXAS	US\$51	US\$97	US\$138	92%	42%	US\$0.00	US\$0.00	US\$0.00	0%	0%	0%	US\$108	US\$104	US\$100	214%	107%	72%	214%	107%	72%
CKE	\$8	\$8	\$17	7%	109%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$39	\$3	\$30	520%	35%	179%	520%	35%	179%
GXE	\$44	\$61	\$111	39%	83%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$48	\$52	\$84	110%	85%	76%	110%	85%	76%
IPO	\$25	\$38	\$57	51%	53%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$49	\$41	\$47	197%	110%	82%	197%	110%	82%
JOY	\$30	\$25	\$49	-17%	96%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$32	\$33	\$50	106%	130%	101%	106%	130%	101%
LXE	\$10	\$21	\$21	n.a.	1%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$94	\$33	\$35	n.a.	n.a.	167%	n.a.	n.a.	167%
PSH	\$21	\$73	\$178	247%	143%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$50	\$126	\$120	238%	172%	67%	238%	172%	67%
RZE	\$7	\$26	\$33	261%	27%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$10	\$34	\$24	137%	129%	73%	137%	129%	73%
IBR	\$2	\$9	\$23	487%	160%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$47	\$49	\$50	3064%	553%	216%	3064%	553%	216%
YGR	\$53	\$91	\$159	72%	75%	\$0.00	\$0.00	\$0.00	0%	0%	0%	\$83	\$122	\$120	158%	135%	75%	158%	135%	75%
Avg <10 mboe/d																				
138% 79%																				

Source: Company Reports, Canaccord Genuity estimates

Figure 29: Comparables; Group averages

August 27, 2018	Capitalization		NAV Multiples						DACF multiples									
	Yield	Implied Return	Debt to EV %	2P NAV CG deck		2P NAV Futures		Contingent NAV CG deck		CG deck Incl. hedges			CG deck excl. Hedges			Futures Incl. hedges		
				P/NAV	Tgt/NAV	P/NAV	Tgt/NAV	P/NAV	Tgt/NAV	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
Avg Seniors	2%	27%	20%	1.1x	1.4x	1.8x	2.3x	0.8x	1.0x	9.7x	7.1x	5.8x	9.9x	6.5x	5.8x	9.7x	7.0x	5.9x
Avg >50 mboe/d	3%	53%	31%	1.4x	2.0x	1.9x	3.9x	0.7x	1.0x	7.7x	6.0x	4.6x	7.8x	6.2x	5.1x	7.7x	5.7x	4.8x
Avg 10-50 mboe/d	1%	36%	36%	1.0x	1.4x	2.6x	3.8x	0.7x	1.0x	7.4x	7.0x	4.8x	7.0x	6.0x	5.2x	7.3x	6.6x	5.3x
Avg <10 mboe/d	0%	40%	28%	0.8x	1.1x	1.2x	1.6x	0.6x	0.8x	7.1x	7.3x	4.9x	6.9x	4.1x	3.0x	7.1x	6.8x	3.5x
Avg CG universe	2%	39%	30%	1.1x	1.4x	1.9x	2.9x	0.7x	1.0x	7.8x	7.0x	4.9x	7.7x	5.7x	4.8x	7.8x	6.6x	4.8x
Avg oil weighted	2%	41%	30%	1.0x	1.4x	1.3x	2.2x	0.7x	0.9x	8.2x	6.1x	4.3x	8.2x	6.1x	5.0x	8.2x	5.9x	4.4x
Avg balanced	1%	32%	28%	1.1x	1.5x	1.8x	2.3x	0.7x	0.9x	8.4x	6.9x	4.4x	9.0x	6.3x	4.8x	8.4x	6.4x	4.4x
Avg gas weighted	1%	39%	33%	1.1x	1.5x	3.6x	5.4x	0.8x	1.0x	5.8x	8.9x	7.0x	5.0x	3.9x	3.9x	5.7x	8.2x	6.5x

Ticker	Leverage						Production						Growth						Hedging		
	Net debt to cash flow						EV/boe/d			Natural gas weight %			Production growth			DAPPS growth			Hedged prod'n %		
	CG deck		Futures				2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
Avg Seniors	2.1x	1.5x	0.9x	2.1x	1.5x	1.5x	\$84,957	\$79,610	\$70,246	24%	21%	21%	15%	6%	7%	6%	5%	8%	19%	26%	16%
Avg >50 mboe/d	2.5x	2.0x	1.4x	2.4x	1.9x	1.9x	\$59,851	\$52,446	\$45,326	46%	44%	44%	10%	12%	10%	-4%	4%	11%	33%	35%	23%
Avg 10-50 mboe/d	3.1x	3.2x	2.1x	3.1x	2.9x	2.6x	\$46,316	\$43,692	\$37,556	41%	39%	39%	27%	9%	10%	-6%	1%	15%	29%	29%	7%
Avg <10 mboe/d	2.3x	2.1x	1.0x	2.3x	1.9x	1.1x	\$67,235	\$47,226	\$34,957	40%	40%	40%	43%	34%	31%	37%	24%	33%	5%	24%	6%
Avg CG universe	2.6x	2.5x	1.5x	2.6x	2.3x	1.9x	\$62,701	\$52,767	\$44,492	38%	36%	36%	22%	14%	15%	4%	6%	17%	21%	28%	11%
Avg oil weighted	2.8x	2.2x	1.2x	2.8x	2.1x	1.6x	\$62,603	\$60,537	\$50,182	18%	15%	15%	29%	18%	16%	10%	11%	21%	17%	23%	6%
Avg balanced	1.9x	2.1x	1.1x	1.9x	1.9x	1.3x	\$60,842	\$51,700	\$41,484	50%	47%	47%	21%	20%	19%	7%	11%	22%	19%	48%	23%
Avg gas weighted	2.9x	3.6x	2.6x	2.8x	3.3x	3.0x	\$33,127	\$31,950	\$29,551	81%	80%	80%	23%	7%	11%	1%	-3%	7%	36%	23%	12%

Ticker	CF growth %		Dividend payout %			Capex/cash flow %			Total payout ratio %		
	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
	Avg Seniors	36%	20%	12%	11%	10%	72%	57%	48%	83%	68%
Avg >50 mboe/d	30%	30%	20%	15%	13%	92%	73%	69%	108%	87%	81%
Avg 10-50 mboe/d	16%	37%	9%	7%	5%	151%	94%	85%	159%	101%	89%
Avg <10 mboe/d	138%	79%	0%	0%	0%	527%	162%	111%	527%	162%	111%
Avg CG universe	54%	45%	9%	8%	6%	218%	99%	83%	227%	107%	89%
Avg oil weighted	62%	40%	11%	9%	8%	125%	86%	61%	135%	95%	69%
Avg balanced	33%	54%	8%	6%	5%	111%	104%	80%	117%	109%	84%
Avg gas weighted	55%	46%	5%	4%	4%	571%	136%	137%	577%	140%	140%

CG prck deck: WTI crude oil US\$65.00/bbl in 2018, US\$65.00/bbl in 2019+; Edpar C\$75.00/bbl in 2018, C\$75.00 in 2019+; NYMEX natural gas US\$2.91/mcf in 2018, US\$3.00/mcf in 2019+; AECO C\$1.69 in 2018, C\$2.00 in 2019+.
Notes: Royalty companies (FRU and PSK) excluded from group averages.
Source: Company Reports, FactSet, Canaccord Genuity estimates.

International E&P comparative valuation tables

Figure 30: International E&P peer comps

PRICING																			
August 27, 2018				Price						Shares		Market		Average		Short		52 Week	
Company	Symb.	Analyst	Exch.	Rating	Price (C\$)	Target (C\$)	Dividend Yield	Total Return	O/S (M)	Cap. (C\$M)	EV (C\$M)	Daily Vol. (k)	Interest (k)	Short Int % of Float	High (C\$)	Low (C\$)			
Canacol Energy Ltd.	CNE	JX	TSX	HOLD	\$4.17	\$5.00	0%	20%	177	\$738	\$1,001	109	156	0.1	\$4.76	\$3.83			
Frontera Energy Corp.	FEC	JX	TSX	BUY	\$18.74	\$33.00	0%	76%	100	\$1,874	\$1,752	107	NA	NA	\$26.40	\$16.50			
GeoPark Ltd.	GPRK	JX	NYSE	BUY	US\$18.82	US\$25.00	0%	33%	61	US\$1,140	US\$1,540	327	NA	NA	US\$21.88	US\$7.45			
Gran Tierra Energy Inc.	GTE	JX	TSX	BUY	\$4.31	\$7.00	0%	62%	385	\$1,660	\$2,010	714	20,723	5.3	\$4.75	\$2.41			
Parex Resources Inc.	PXT	JX	TSX	BUY	\$19.19	\$31.50	0%	64%	155	\$2,970	\$2,700	733	6,389	4.4	\$26.78	\$12.19			
Renaissance Oil Corp.	ROE	JX	TSXV	SPECULATIVE BUY	\$0.20	\$0.80	0%	300%	278	\$56	\$40	269	NA	NA	\$0.36	\$0.16			
TransGlobe Energy Corp.	TGL	JX	TSX	SPECULATIVE BUY	\$4.49	\$6.00	2%	36%	72	\$324	\$353	173	505	0.8	\$5.45	\$1.30			
Average								2%	84%	\$1,302		\$1,410	347						

VALUATION METRICS																		
Symb.	P/CF			EV/EBITDA			EV/DACF			EV/boe/d (C\$)			EV/2017 reserves		Base NAV		Contingent NAV	
	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	1P (C\$/boe)	2P (C\$/boe)	2018E (C\$/sh)	P/NAV	2018E (C\$/sh)	P/NAV
CNE	6.6x	5.6x	3.5x	NM	5.8x	3.3x	6.7x	5.7x	3.7x	\$61,076	\$48,144	\$30,039	\$16.05	\$10.21	\$4.30	97%	\$6.20	67%
FEC	4.4x	3.7x	2.7x	6.5x	3.5x	2.1x	4.1x	3.0x	2.3x	\$23,223	\$24,327	\$25,515	\$13.62	\$10.15	\$31.55	59%	\$33.16	57%
GPRK	2.7x	3.9x	3.2x	4.5x	4.2x	3.3x	3.6x	4.7x	3.6x	US\$55,840	US\$43,035	US\$37,052	US\$15.88	US\$9.68	US\$20.00	94%	US\$25.00	75%
GTE	4.5x	3.8x	3.1x	5.9x	3.7x	2.8x	5.1x	4.3x	3.3x	\$63,951	\$55,270	\$45,728	\$27.11	\$14.67	\$4.80	90%	\$7.00	62%
PXT	7.2x	6.2x	3.9x	6.6x	3.3x	2.6x	6.4x	5.3x	2.9x	\$75,976	\$61,961	\$52,379	\$28.27	\$16.64	\$24.15	79%	\$31.60	61%
ROE	NM	NM	5.1x	NM	NM	5.0x	NM	NM	4.1x	\$24,864	\$25,493	\$8,722	NM	NM	\$0.17	118%	\$0.81	25%
TGL	4.4x	2.9x	2.6x	NM	2.0x	1.4x	4.2x	2.9x	2.0x	\$22,746	\$23,945	\$22,150	\$12.83	\$7.69	\$5.20	86%	\$6.05	74%
Average	5.0x	4.3x	3.4x	5.9x	3.8x	2.9x	5.0x	4.3x	3.1x	\$49,272	\$42,207	\$33,288	\$19.78	\$12.00	\$13.76	89%	\$16.79	60%

FINANCIAL & OPERATING METRICS																										
Ticker	CFPS fd			DACF (\$M)			Capex (\$M)			Net debt (\$M)			Net D/CF			Production (kboe/d, before royalties)			Gas % of production			CF netbacks (\$/boe)			2017 reserves	
	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2P (M boe)	PDP %
CNE	\$ 0.48	\$ 0.58	\$ 0.93	\$115	\$136	\$197	\$125	\$93	\$84	\$214	\$184	\$131	2.5x	1.8x	0.8x	16.4	20.8	33.3	80%	91%	96%	\$14.17	\$13.55	\$13.49	98.1	39%
FEC	\$ 7.07	\$ 3.96	\$ 5.44	\$378	\$460	\$577	\$222	\$498	\$297	(\$60)	(\$2)	(\$250)	-0.2x	0.0x	-0.5x	75.5	72.0	68.7	8%	6%	4%	\$13.54	\$15.90	\$21.72	172.6	29%
GPRK	\$ 2.79	\$ 4.22	\$ 5.15	\$219	\$293	\$343	\$106	\$142	\$137	\$370	\$336	\$162	2.2x	1.3x	0.5x	27.6	35.8	41.6	17%	14%	12%	\$17.56	\$19.75	\$20.56	159.2	18%
GTE	\$ 0.52	\$ 0.82	\$ 1.02	\$232	\$342	\$422	\$251	\$290	\$252	\$268	\$251	\$95	1.2x	0.8x	0.2x	31.4	36.4	43.9	1%	0%	0%	\$19.08	\$24.08	\$24.82	137.0	32%
PXT	\$ 1.73	\$ 2.29	\$ 3.66	\$282	\$372	\$604	\$207	\$284	\$191	(\$163)	(\$167)	(\$576)	-0.6x	-0.5x	-1.0x	35.5	43.6	51.6	1%	1%	1%	\$21.57	\$23.19	\$31.87	162.2	31%
ROE	(\$0.04)	\$0.00	\$0.04	(\$3)	\$0	\$18	\$5	\$14	\$26	(\$6)	(\$4)	(\$32)	NM	NM	-1.8x	1.6	1.6	4.6	61%	62%	48%	(\$3.13)	\$0.96	\$10.42	1.3	40%
TGL	\$ 0.76	\$ 1.15	\$ 1.28	\$62	\$89	\$99	\$38	\$44	\$32	\$19	(\$16)	(\$73)	0.3x	-0.2x	-0.8x	15.5	14.7	15.9	7%	6%	6%	\$9.82	\$15.70	\$16.14	45.9	42%
Average													0.9x	0.5x	-0.3x	29.1	32.1	37.1	25%	26%	24%	\$13.34	\$16.13	\$19.51	110.9	33%

Sources: Company reports, Canaccord Genuity estimates, FactSet, Bloomberg Finance L.P. All estimates are in US\$, unless otherwise indicated.

Oilfield Services comparative valuation tables

Figure 31: Pricing and Valuation

Pricing (Aug. 27, 2018)

Company	Ticker	Rating	Price	Target Price	Dividend Yield	Total Return	Shares O/S	Market Cap	Net Debt	EV	Return			
											1 Wk.	1 Mnth.	3 Mnth.	YTD
Calfrac Well Services	CFW	Buy	5.51	7.00	0.0%	27%	144.2	794.6	1,039.0	1,833.6	17%	3%	(23%)	(8%)
CES Energy Solutions	CEU	Buy	5.09	7.00	1.2%	39%	268.9	1,368.9	410.9	1,779.8	16%	10%	(6%)	(22%)
Ensign Energy Services	ESI	Hold	7.02	6.50	6.8%	(1%)	156.9	1,101.4	726.6	1,828.0	10%	28%	16%	9%
ENTREC	ENT	Hold	0.17	0.20	0.0%	18%	109.8	18.7	156.5	175.1	0%	(6%)	(13%)	(15%)
Essential Energy Services	ESN	Hold	0.55	0.65	0.0%	18%	141.9	78.0	22.6	100.6	6%	2%	(8%)	(24%)
McCoy Global	MCB	Hold	1.33	1.60	0.0%	20%	27.7	36.8	(12.3)	24.5	(1%)	(5%)	(1%)	(4%)
Mullen Group	MTL	Hold	16.51	17.50	3.6%	10%	104.1	1,719.5	450.6	2,170.1	3%	7%	13%	5%
Precision Drilling	PD	Hold	5.28	5.25	0.0%	(1%)	293.2	1,548.3	1,641.2	3,189.5	14%	17%	9%	39%
Secure Energy Services	SES	Buy	8.52	11.00	3.2%	32%	163.4	1,392.4	344.8	1,737.2	3%	11%	10%	(3%)
Source Energy Services	SHLE	Buy	4.99	8.75	0.0%	75%	62.9	313.6	162.1	475.8	3%	(5%)	0%	(45%)
Tervita Corporation	TEV	Buy	9.00	12.50	0.0%	39%	117.6	1,058.0	748.2	1,806.1	(5%)	(12%)	NA	NA
Total Energy Services	TOT	Buy	11.98	17.00	2.0%	44%	46.2	553.9	303.3	857.2	4%	8%	(2%)	(19%)
Trican Well Service	TCW	Buy	3.18	4.25	0.0%	34%	326.8	1,039.3	58.7	1,098.1	15%	14%	(0%)	(22%)
Trinidad Drilling	TDG	Buy	1.79	2.00	0.0%	12%	273.5	489.5	470.6	960.1	1%	11%	(5%)	5%
Western Energy Services	WRG	Hold	0.90	1.00	0.0%	11%	92.2	83.0	225.6	308.5	7%	(10%)	(19%)	(29%)
Median					0.0%	20%		794.6	344.8	1,098.1	4%	7%	(2%)	(11%)
Average					1.1%	25%		773.1	449.9	1,223.0	6%	5%	(2%)	(10%)

Valuation & Balance Sheet Metrics

Ticker	EBITDA			EV/EBITDA			EPS			Debt/EBITDA			Interest Coverage		
	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E	2017A	2018E	2019E
CFW	186.2	304.7	339.6	9.1x	5.7x	5.1x	0.04	0.03	0.48	4.8x	3.1x	2.7x	2.2x	2.8x	4.2x
CEU	152.8	173.3	215.8	10.0x	8.9x	7.3x	0.14	0.19	0.26	1.0x	1.0x	1.0x	3.8x	7.3x	9.9x
ESI	201.8	240.5	301.0	8.9x	7.4x	5.7x	(0.24)	(0.80)	(0.64)	3.5x	2.9x	2.0x	4.9x	6.0x	8.0x
ENT	11.3	14.1	24.7	15.0x	12.2x	6.5x	(0.13)	(0.14)	(0.05)	13.4x	10.8x	5.8x	1.3x	1.4x	2.9x
ESN	18.6	24.0	27.6	5.2x	4.4x	4.0x	(0.02)	0.03	0.03	1.0x	1.1x	1.1x	15.1x	16.0x	15.8x
MCB	(4.2)	0.7	4.6	NA	38.7x	5.5x	(0.59)	(0.25)	(0.08)	Nmf	Nmf	Nmf	Nmf	2.7x	19.8x
MTL	180.3	194.8	245.0	11.9x	11.1x	8.6x	0.63	0.55	0.94	2.4x	2.2x	1.6x	99.4x	Nmf	9.3x
PD	311.8	392.5	510.6	10.5x	8.1x	6.0x	(0.45)	(0.29)	0.00	5.5x	4.2x	2.9x	2.3x	3.3x	4.4x
SES	156.7	185.4	230.8	10.5x	9.3x	7.4x	(0.21)	0.12	0.28	1.7x	1.8x	1.4x	12.6x	10.9x	17.8x
SHLE	40.6	104.5	130.1	11.2x	4.5x	3.3x	(0.21)	0.62	0.92	3.5x	1.5x	0.8x	1.4x	5.7x	7.1x
TEV	156.0	189.0	267.2	9.3x	9.6x	6.6x	(0.78)	0.19	0.50	2.5x	4.0x	2.6x	3.2x	3.1x	3.9x
TOT	73.9	117.9	153.9	9.8x	7.2x	5.0x	(0.29)	0.50	1.00	2.3x	2.5x	1.4x	5.2x	8.5x	14.9x
TCW	183.3	173.7	234.9	6.4x	6.3x	4.2x	0.13	(0.08)	0.22	0.8x	0.3x	Nmf	13.5x	20.5x	Nmf
TDG	129.9	153.6	190.3	8.0x	6.6x	5.2x	(0.29)	(0.28)	(0.29)	4.2x	3.4x	2.7x	3.1x	4.1x	5.0x
WRG	35.5	37.8	51.5	8.5x	7.9x	5.4x	(0.49)	(0.40)	(0.31)	6.2x	5.7x	3.8x	1.6x	1.9x	2.6x
Median	152.8	173.3	215.8	9.6x	7.9x	5.5x	(0.21)	0.03	0.22	3.0x	2.7x	2.0x	3.5x	4.9x	7.6x
Average	122.3	153.8	195.2	9.6x	9.9x	5.7x	(0.18)	(0.00)	0.22	3.8x	3.2x	2.3x	12.1x	6.7x	9.0x

Source: Company Reports, Canaccord Genuity estimates, FactSet

Figure 32: International E&P week-over-week estimate changes

Company name	Ticker	Analyst	12-month Price Target (C\$)			% chg	Recommendation		2018E Contingent NAV (C\$)			% chg	2018E Prodn (kboe/d)		% chg	2019E Prodn (kboe/d)		% chg	2018E CFPS (US\$)			% chg	2019E CFPS (US\$)			% chg
			Current	Prior			Current	Prior	Current	Prior	Current		Prior	Current		Prior	Current		Prior	Current	Prior		Current	Prior	Current	
Canacol Energy Ltd.	CNE	JX	\$5.00	\$5.00		HOLD	HOLD	\$6.20	\$6.20		20.8	20.8		33.3	33.3		\$0.58	\$0.58		\$0.93	\$0.93					
Frontera Energy Corp.	FEC	JX	\$33.00	\$33.00		BUY	BUY	\$33.16	\$33.16		72.0	72.0		68.7	68.7		\$3.96	\$3.96		\$5.44	\$5.44					
GeoPark Limited	GPRK	JX	US\$25.00	US\$25.00		BUY	BUY	US\$25.00	US\$25.00		35.8	35.8		41.6	41.6		\$4.22	\$4.22		\$5.15	\$5.15					
Gran Tierra Energy Inc.	GTE	JX	\$7.00	\$7.00		BUY	BUY	\$7.00	\$7.00		36.4	36.4		43.9	43.9		\$0.82	\$0.82		\$1.02	\$1.02					
Parex Resources Inc.	PXT	JX	\$31.50	\$31.50		BUY	BUY	\$31.55	\$31.55		43.6	43.6		51.6	51.6		\$2.29	\$2.29		\$3.66	\$3.66					
Renaissance Oil Corp.	ROE	JX	\$0.80	\$0.80		SPEC BUY	SPEC BUY	\$0.83	\$0.83		1.6	1.6		4.6	4.6		\$0.00	\$0.00		\$0.04	\$0.04					
TransGlobe Energy Corp.	TGL	JX	\$6.00	\$6.00		SPEC BUY	SPEC BUY	\$6.05	\$6.05		14.7	14.7		14.7	14.7		\$1.15	\$1.15		\$1.28	\$1.28					
Average					0%					0%					0%						0%					0%

Source: Canaccord Genuity estimates

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Investment Recommendation

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	902*	100.0%	

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