



yoY in Canada and +6.3% in the U.S. We note that any moderation in rig count growth would pose a risk to industrial activity in the U.S. given their 88% correlation and likely puts pressure on energy related carload demand. We note that these rig count forecasts are largely dependent on oil prices staying relatively stable and lower prices would present additional risks to the current environment.

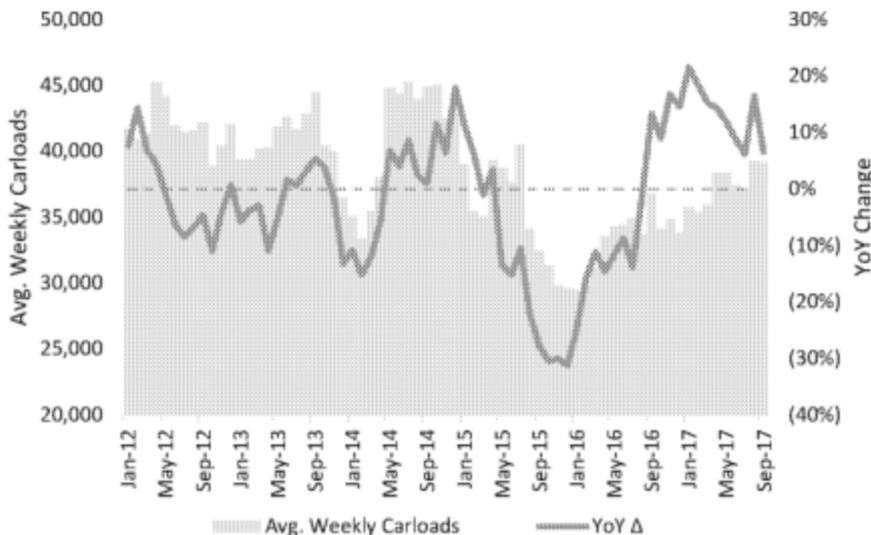
Figure 68: DB's Oil Services team forecasts 6% growth in rig count in 2018

Rig count forecast	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	2016	2017	2018
<b>United States</b>											
Oil-directed rigs	427	315	374	449	573	699	746	735	391	688	744
Gas-directed rigs	108	82	85	117	148	174	182	170	98	168	167
<b>Total U.S. land rigs</b>	<b>535</b>	<b>397</b>	<b>459</b>	<b>565</b>	<b>721</b>	<b>873</b>	<b>928</b>	<b>905</b>	<b>489</b>	<b>856</b>	<b>911</b>
Sequential chg	(26%)	(26%)	16%	23%	27%	21%	6%	(3%)	(48%)	75%	6%
Gulf of Mexico	26	23	18	22	20	21	21	21	22	21	21
Canada	166	48	121	181	295	117	206	300	129	230	241
Sequential chg	(5%)	(71%)	152%	50%	63%	(60%)	76%	46%	(34%)	78%	5%
<b>North America</b>	<b>727</b>	<b>468</b>	<b>598</b>	<b>769</b>	<b>1,036</b>	<b>1,011</b>	<b>1,155</b>	<b>1,225</b>	<b>641</b>	<b>1,107</b>	<b>1,173</b>

Source: Deutsche Bank Oil Services research (Analyst David Havens)

- Metallic Ores & Metals** - Metallic ores & metals account for about 11% of total carload traffic (ex-intermodal) in North America - 17% in Canada and 9% in the U.S. The business is made up of metallic ores, coke, metals/metal products, and iron/steel and is generally driven by overall industrial activity with specific exposure to the oil and gas, construction and auto industries. The business has fluctuated with the swings in oil and gas production in recent years though has rebounded lately with volumes up roughly 12% ytd after declining 14% and 5% in 2015 and 2016, respectively. Additionally, the USD can impact global metals demand and recent weakness is likely supporting growth for the business due to increased demand for exports.

Figure 69: Metallic ores & Metals carload trends (U.S. + Can) since 2012



Source: Deutsche Bank, AAR

- Forest products** - Forest products account for roughly 5% of total carload traffic (ex-intermodal) in North America - 11% in Canada and 4% in the U.S. The business is largely comprised of lumber, paper,