

## Continuing Mining Market Recovery confirmed by Q2 Shipments

Deliveries of large mobile mining equipment to surface/open pit mines worldwide continued during April-June 2017 and the pace accelerated from that of the previous quarter. The latest gains mark a full year since these equipment markets reach a nadir during Q2 2016 at the end of a four-year-long contraction that witnessed machine shipments decline by more than 75% from the start of 2012. From this very depressed Q2 2016 base, shipments have nearly doubled over the past year. Related measures of mining industry activity (mineral production and prices, mining company revenues and profits, capex, acquisitions of major mine assets) all point toward these results continuing for the balance of 2017 and beyond.

Parker Bay's Surface Mining Equipment Index measures gains with the latest increase exceeding 20% on a dollar-weighted basis over Q1. Despite these gains, the index now barely half of the initial Q1 2007 level and less than one-third of the peak shipments level achieved in Q1 2012. So the potential for further growth as miners gain confidence in overall mining market conditions is great.



### Behind the Aggregates: Substantial Difference by Product Line

As mining companies resumed investments in large equipment during the current recovery/expansion, a substantial majority of the machines have been purchased for replacement at existing operations or for 'brownfield' expansions at these mines. This continued during Q2 with more than 90% of all shipments delivered to mines open for a year or more. The focus for most mines has been on replacing or upgrading their truck fleets along with augmenting their dozer capabilities. Truck shipments were up 27% vs Q1 and +128% on Q2 2016; dozers recorded a more modest 11% gain over Q1 and +63% year-over-year. In sharp contrast, excavators/loaders increased only modestly during Q2. In particular,

demand for the very largest electric/rope shovels has all but disappeared with deliveries of just seven units combined during the past year. Hydraulic shovels/excavator shipments have grown modestly while wheel loader deliveries are 15% lower than the global levels at the start of the current recovery.

It is not surprising that the larger, longer-lived excavators/loaders have trailed the performance of trucks and dozers. And it is anticipated that mines will begin to increase their demands for these products as the expansion cycle continues into 2018.

Large Surface Mining Equipment Shipments							
By Product Line							
	<-----2016----->			<-----2017----->		% Δ	% Δ
Product:	Q2	Q3	Q4	Q1	Q2	Q2 / Q1	Q2 / Q2
<b>Total*</b>	<b>385</b>	<b>445</b>	<b>561</b>	<b>614</b>	<b>740</b>	<b>21%</b>	<b>92%</b>
Mining Trucks	227	274	404	406	517	27%	128%
Hydraulic Shovels/Excavators	39	40	49	45	49	9%	26%
Wheel Loaders	26	23	29	22	22	0%	-15%
Electric/Rope Shovels	3	3	1	1	2	100%	-33%
Dozers, Crawler & Wheel	75	94	69	110	122	11%	63%
* Product listings do not add to Total due to reporting & non-disclosure consideration.							

### Geographic & Mineral Trends

Although mines in Russia/CIS remained the fastest growing sector since the markets began to recover in Q3 2016, the larger mature mining sector in North America recorded the largest gains during April-June driven by oil sands producers who have begun to replace ultra-class trucks put to work at the beginning of the Super Cycle. These mines are both scaling up (i.e., 363-mt units in place of the original 290-mt payload models) and beginning to apply autonomous-drive technology.

Deliveries to Australian mines increased by nearly 50% (Q2 / Q1) with the strongest gains coming from Indonesian contactors and, somewhat surprisingly given the adverse political climate, from mines in the Philippines. In contrast, new machine shipments to Australian mines remain well below their historical shares and levels. Although there is some evidence of tightening of machine surpluses (i.e., increased utilization of machines in place, decreasing availability of used machines for sale), Australian miners have yet to return to the new equipment market in significant numbers during this first year of recovery.

After slowing growth during early 2017, shipments to Russia/CIS mines increased by a substantial 29% in the latest quarter continuing the regions lead as the most common destination for shipments during the past four calendar quarters, this despite having a smaller number of machines in service than

Australasia, North America or Latin America. Eventually, these other regions can be expected to replace Russia/CIS but how soon and by how much are significant unknowns.

### Large Surface Mining Equipment Shipments By Geographic Region

Region:	<-----2016----->			<-----2017-		% Δ Q2 / Q1	% Δ Q2 / Q2
	Q2	Q3	Q4	Q1	Q2		
<b>Total*</b>	<b>385</b>	<b>445</b>	<b>561</b>	<b>614</b>	<b>740</b>	<b>21%</b>	<b>92%</b>
Africa	66	56	44	85	76	-11%	15%
Asia	28	79	58	104	72	-31%	157%
Australasia	83	98	130	134	200	49%	141%
Europe, Middle East	14	6	58	24	8	-67%	-43%
Latin America	33	40	26	44	59	34%	79%
North America	67	29	67	39	87	123%	30%
Russia, CIS	94	137	178	184	238	29%	153%

Perhaps the most surprising result during the ongoing market expansion has been the strength of the coal sector. Although the largest single mineral application for these large machines for many years, coal prospects have been adversely impacted by widespread social and political objections to the continued burning of coal. Nevertheless, the strength of metallurgical coal demand along with continued growing demand in countries such as Russia, India and Indonesia have prompted coal miners in these regions to added substantial new machines accounting for more than half of all industry - wide deliveries over the past year and only a slightly smaller share of the latest quarter's shipments.

Of the three major metal mine segments (copper, gold, iron), copper has surprisingly lagged behind the other two. And there was little change to this anomaly during Q2. The gains posted by iron and gold miners are likely in response to surges in prices for both minerals during 2016. Copper prices initially surged in late-2016, then leveled off until mid-year 2017 when they again regained ground lost during 2012-2015. With prices surpassing US\$3.00/pound, and indications of the market moving from surplus to deficit, copper miners may well be a driving for equipment markets in the coming year.

Oil sands mining was the stellar market performer during Q2 with mines in this niche market accounting for fully 10% of machines delivered during April-June (vs. just 1 to 2% during the earlier quarters of the recovery). Oil price levels have exhibited some gains to the benefit of these mines. But the driving forces are believed to be replacement requirements and their drive to achieve cost-reductions from new machines (especially trucks) with cost-saving technology.

**Large Surface Mining Equipment Shipments  
By Market Share by Mineral \***

Region:	<-----2016----->			<--2017-->	
	Q2	Q3	Q4	Q1	Q2
Coal	32%	51%	59%	55%	49%
Copper	9%	6%	5%	8%	8%
Gold	21%	9%	13%	15%	12%
Iron	9%	12%	7%	9%	10%
Oil Sands	5%	1%	5%	2%	10%
Others	24%	22%	12%	11%	11%

*\* Excludes units identified by contractor, lease/rental, or corporate location only.*