Environmental Services

Spotlight On:

Used Oil Collection & Re-refining

Navigating a New Normal Page 10

The recent downturn in the energy markets has had a significant impact on the used oil value chain, which is undergoing a paradigm shift as market participants aggressively lower feedstock costs to preserve margin. Uncertainty is creating opportunity for well-capitalized players as they pursue strategic acquisitions to build scale.

Industry executives share insight on market dynamics, recent consolidation, and near-term outlook.

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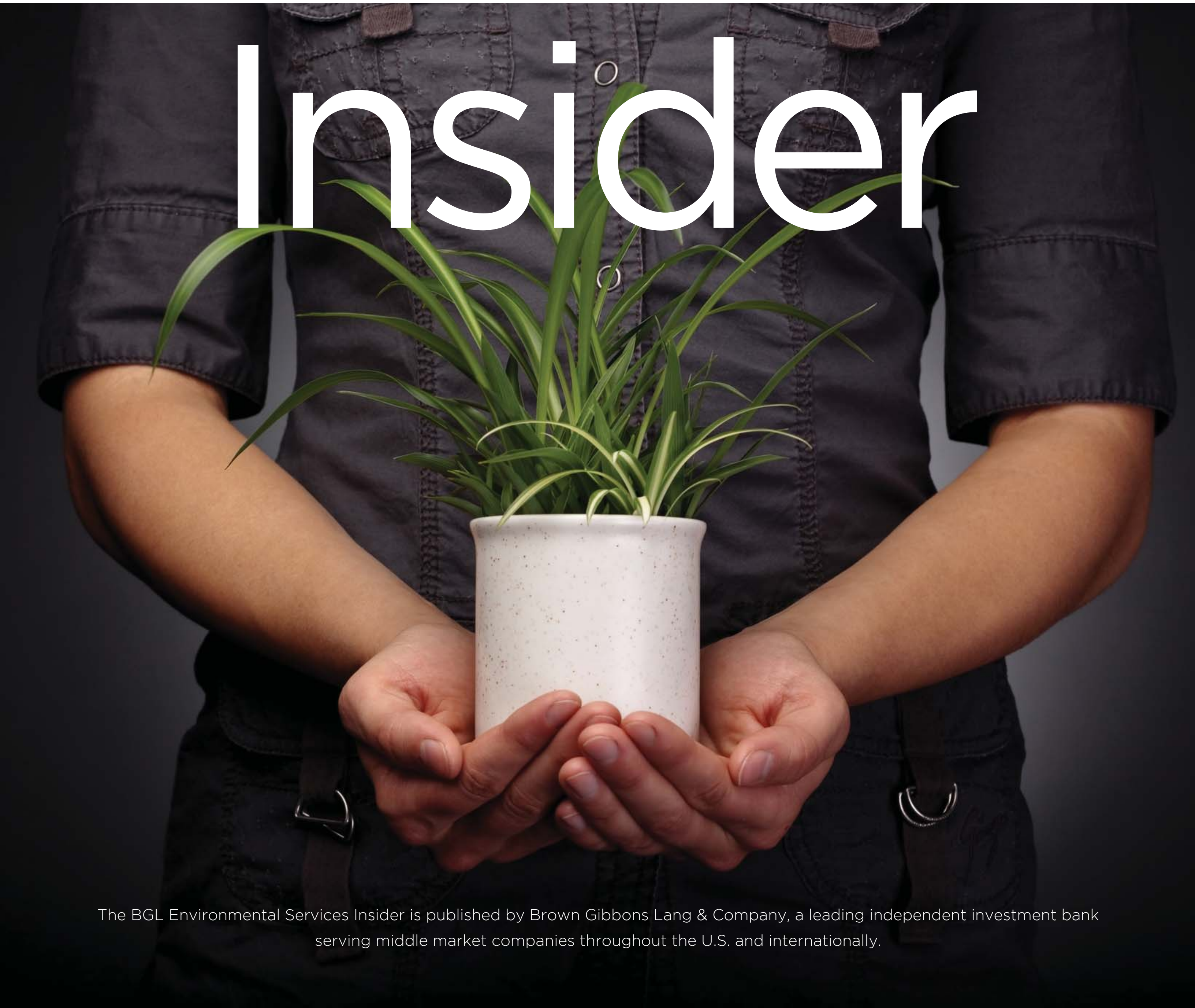

The BGL Environmental Services Insider is published by Brown Gibbons Lang & Company, a leading independent investment bank serving middle market companies throughout the U.S. and internationally.

The Environmental Services Insider discusses valuation metrics, recent mergers and acquisitions and capital markets activity, and select sector commentary for BGL's core focus areas within the environmental services industry:

- *Solid Waste (Non-Hazardous)*
- *Special Waste (Hazardous as well as other non-traditional waste streams)*
- *Environmental Engineering & Consulting (EE&C)*
- *E-Waste & Metals Recycling*
- *Reclamation & Remediation*
- *Waste-to-Energy (WtE)*
- *Energy Services*

Feature spotlights present our views and views of the market on certain sectors gathered through primary research and industry-focused transaction expertise.

M&A and Capital Markets Activity

- Middle market[1] M&A activity slowed in 1Q15 from robust fourth quarter levels, with deal volume declining 15 percent on 19 percent lower deal value. Transaction activity is up a healthy 30 percent from 1Q14 levels on 23 percent higher value.
- Leveraged lending was off to a slow start in 1Q15 with middle market new money issuance the lowest level in five years, reported Thomson Reuters LPC in its *2Q15 Middle Market Lender Outlook* survey. The $11.3 billion logged in the quarter is down 54 percent from 4Q14 and 49 percent from the same period a year ago. More than 90 percent of banks and non-banks in the Thomson survey fell short of lending goals in 1Q15, attributing aggressive structures and tight pricing, in part, to the volume shortfall.
- Leverage multiples remain at elevated levels in support of full valuations. *S&P Leveraged Commentary & Data* reported senior leverage (senior debt to EBITDA) of 4.7x for middle market leveraged buyouts in March. Purchase price multiples for the March LTM period increased to 8.6x and 8.5x for strategic and financial buyer transactions, respectively.
- In the broader middle market (EBITDA < $50 million), senior leverage decreased modestly to 4.8x in 1Q15 from 5.2x in 2014. Non-bank lenders continue to show a high leverage tolerance, with a majority expressing a willingness to go above 4.0x senior/5.5x total debt in transaction structures, according to the Thomson survey.
- Environmental and energy services is seeing steady deal flow, particularly in Solid Waste which saw several transaction announcements in 1Q15 involving acquisitive private equity sponsor-backed buyers: Advanced Disposal (Highstar Capital) with three tuck-in acquisitions (Rock Disposal, Pea Ridge Waste Management, and Hornback Recycling & Disposal); Rizzo Environmental Services (Kinderhook Industries) picked up Canton Waste Recycling; and Winters Brothers Waste Systems (Clairvest Group) acquired Progressive's Long Island waste and recycling business. WCA Waste (Macquarie Infrastructure Partners) reported the closing of nine tuck-in buys over the last twelve months.
- Public strategics are also active. Republic Services (NYSE:RSG) acquired City Carton Company and Tervita Waste Processing during the quarter. Waste Management (NYSE:WM) acquired Big "O" Refuse, and in March, completed the acquisition of Deffenbaugh Disposal announced last October, after divesting commercial waste collection assets in Arkansas and Kansas under orders from the Department of Justice.
- Special Waste is seeing opportunistic buys in the weak energy market, most notably Clean Harbors' acquisition of Thermo Fluids. Birch Hill Equity Partners purchased the Industrial Division of Newalta Corporation (TSX:NAL), renaming the business Terrapure Environmental.

1 Middle market defined as enterprise values between $25 million and $500 million.

Public Equity Markets

- The public equity markets experienced volatility in the quarter as a weak energy market dominated headlines. Recently announced stimulus efforts are expected to buoy a stagnant global economy, lifting investor confidence. Year-over-year, the S&P 500 and DJIA are up 12.7 percent and 9.6 percent, respectively. The BGL Vertically Integrated Solid Waste composite index outperformed the broader market over the same period with a year-over-year return of 18.4 percent.

*As of April 24, 2015.

Operating Highlights

- Improving commercial and industrial markets are supporting strong solid waste fundamentals.
- The sharp decline in oil prices has had a material impact on domestic drilling, with reduced activity expected to slow E&P waste volumes beginning in mid-2015 and extending into 2016.
- Used oil collection and recycling is undergoing a paradigm shift as participants aggressively lower feedstock costs to preserve margin. Market uncertainty is creating opportunity for well-capitalized players as they pursue opportunistic acquisitions to build scale in the downturn.
- EE&C companies are reporting backlog growth on private sector strength (notably renewed construction activity) and improving activity levels in the public sector, with healthier budgets at the federal, state, and municipal levels cited. Midstream and downstream oil & gas development, which has been less impacted by weakening oil prices, and infrastructure revitalization are areas of future growth.

For more information on how BGL's Global Environmental and Energy Services Practice can assist your company, please contact:

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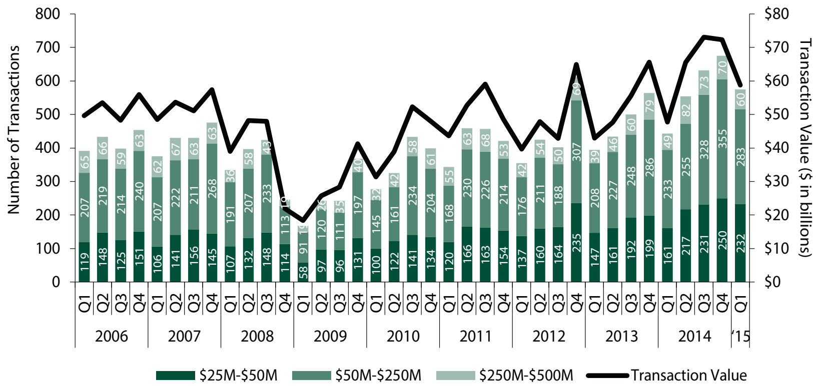
Mergers & Acquisitions
Overall M&A Activity

Mergers & Acquisitions Activity

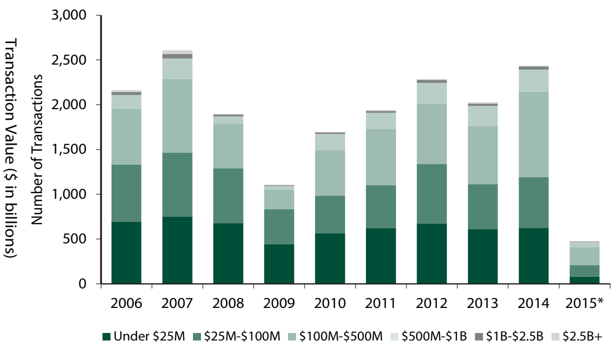
Middle Market M&A Activity



Based on announced deals, where the primary location of the target is in the United States. Middle market enterprise values between $25 million and $500 million. *SOURCE: S&P Capital IQ.*

Private Equity Transaction Activity*

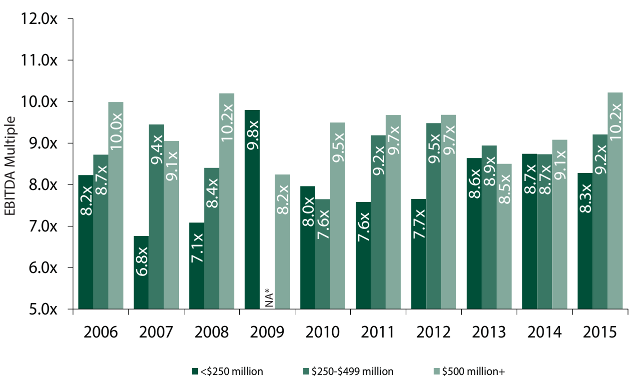
Transaction Count by Deal Size



**Buyout activity only*
2015 data of 3/31/2015. *SOURCE: PitchBook.*

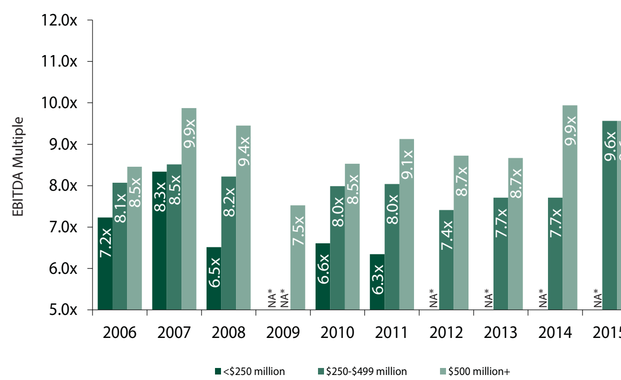
Trends in Valuation

Transactions with Strategic Buyers



**NA: Data not reported due to limited number of observations for period.* *SOURCE: Standard & Poors LCD.*

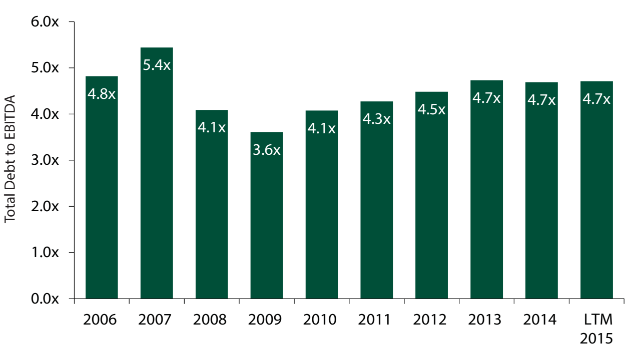
Transactions with Financial Buyers



**NA: Data not reported due to limited number of observations for period.* *SOURCE: Standard & Poors LCD.*

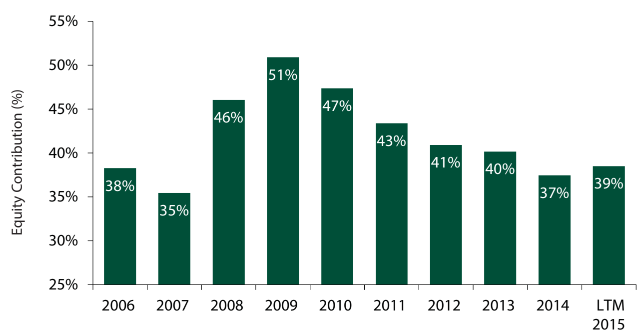
Acquisition Financing Trends

Total Leverage



Middle market enterprise values between $25 million and $500 million. *SOURCE: Standard & Poors LCD.*

Equity Contribution



Middle market enterprise values between $25 million and $500 million. *SOURCE: Standard & Poors LCD.*

Notable M&A Activity in Solid Waste

SOLID WASTE

Private equity-backed **Advanced Disposal Services** (ADS) is off to an aggressive start in 2015 announcing three tuck-in acquisitions in the first quarter:

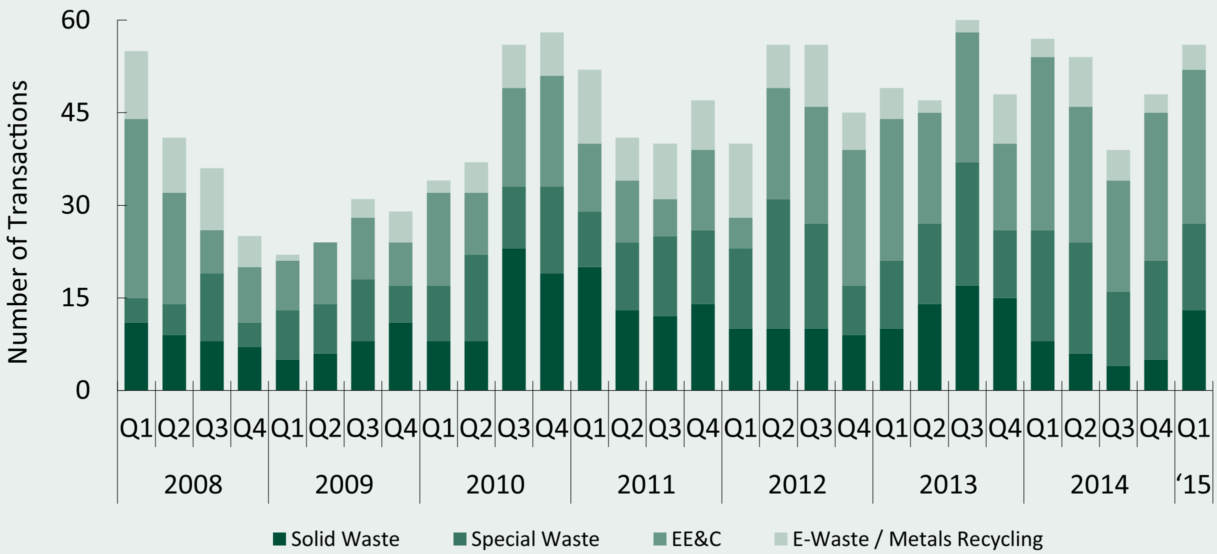
In April, Beloit, Wisconsin-based **Rock Disposal Inc.**, expanding its footprint in five Wisconsin counties and one in Illinois. Commenting on the transaction, Regional Vice President Dan DeWaard, said in a company statement, "The acquisition of Rock Disposal expands the Advanced Disposal footprint in southern Wisconsin by growing our municipal, residential, and commercial operations and providing an important transfer station asset to increase volumes to our Orchard Hills and Mallard Ridge landfills."

In January, Henderson, Kentucky-based **Pea Ridge Waste Management LLC** and **Hornback Recycling & Disposal Inc.** of Ann Arbor, Michigan. Pea Ridge expands ADS' footprint in northwest Kentucky with the addition of residential and commercial customers in Henderson, Union, and Webster counties. Hornback adds residential and commercial customers in the Michigan counties of Washtenaw, Wayne, Livingston, and Oakland counties. "Hornback presented an opportunity to tuck in new residential and commercial customers into our existing collection operations; thus, increasing efficiencies and densities while growing our operations," said Dave Lavender, Advanced Disposal region vice president.

Acquisitive growth remains a focus for Advanced Disposal with the backing of private equity owner **Highstar Capital**, which acquired the company in 2006. CEO Richard Burke told *Waste 360* in a September 2014 interview, "Acquisitions...are opportunistic. We're ready to seize opportunities when they become available, and we're out looking for deals all the time to enhance our positions." At that time, the company was targeting between $30 million to $50 million in growth through acquisitions and municipal contracts. "We'll continue to look for opportunities to grow strategically in key markets and enhance our vertically integrated geographic hub strategy," Burke said.

Historical Environmental Services M&A Activity

Quarterly M&A Activity by Sector



Based on announced deals, where the primary location of the target is in the United States.
Source: S&P Capital IQ, mergermarket, PitchBook, and BGL Research.

Notable M&A Activity in Solid Waste

SOLID WASTE (continued)

Advanced Disposal reported a net loss of $17.1 million on revenue of $1.4 billion in 2014, reported *Waste 360*, an improvement from the $1.32 billion in revenue and $117.8 million net loss in 2013.

In April 2015, private equity-backed **Rizzo Environmental Services** acquired **Canton Waste Recycling**. The addition of Canton Township and its estimated 90,000 residents expands Rizzo's footprint in metro Detroit to 39 communities. "We have significantly expanded our base of operation in western Wayne County (and) with [the Canton] acquisition, we will now be able to base trucks closer to our customers in western Wayne County," said Rizzo CEO Chuck Rizzo in a company statement. "This means better prices and better service for both our residential and business customers."

Rizzo also acquired Romulus-based **Nelson Paper Recycling LLC** in January. Rizzo has been backed by **Kinderhook Industries** since 2011.

In March 2015, **Winters Bros. Waste Systems** acquired the **Long Island waste and recycling business** of **Progressive Waste Solutions Ltd.** (TSX:BIN), expanding its footprint with the addition of 20,000 customers and municipalities in the New York counties of Nassau and Suffolk. Assets acquired include all hauling operations, seven recycling units, and eight transfer stations. "The purchase of operations on Long Island creates a strong regional platform for our continued growth," said CEO Joe Winters. "More importantly, we will be able to help municipalities and customers solve their solid waste problems and increase the recycling infrastructure, which is badly needed to advance recycling across Long Island."

Clairvest Group has been an investor in Winters Bros. since 2013. **Clairvest Equity Partners** recently supplied $25.6 million in development capital to help fund the acquisition.

In February 2015, **Waste Management** (NYSE:WM) acquired Newark, Ohio-based waste and recycling firm **Big O Refuse LLC** from **Tunnel Hill Partners**. Big O provides comprehensive recycling and waste collection services for residential, commercial, and industrial customers in eight counties. In 2011, it served about 5,000 households, or 25 percent of Newark. The companies' combined operations in Newark will make it the largest provider of waste collection and recycling services in the region, according to a WM statement.

In March 2015, WM completed the acquisition of **Deffenbaugh Disposal**, previously announced in October 2014. The company was ordered by the Department of Justice to divest small container commercial waste service routes in the Topeka, Kansas area and in Northwestern Arkansas in order to complete the transaction.
In January 2015, **Republic Services** (NYSE:RSG) acquired **City Carton Company** of Iowa City, Iowa. The company provides recycling services including computer destruction, carton recycling, and sustainability audits for Iowa and the Midwest. According to *Recycling Today*, City Carton is one of the 20 largest paper recyclers in the United States. The company also owns Document Destruction and Recycling Services (DDRS), which operates facilities in Cedar Rapids, Davenport, and Altoona. "City Carton's team and platform further positions Republic for growth in our core service offerings, as well as expansion in eastern Iowa," said Russ Knocke, Republic's field communications director, to *Waste 360*. Republic acquired **Rainbow Environmental Services** in October 2014, a provider of MSW, recycling, and disposal services in Southern California.

Republic, in a presentation to investors this March, indicated the company is "actively managing [its acquisition] pipeline to maintain a steady pace of approximately $100 million of annual investment." Republic reported it had acquired run-rate annual revenue of $132 million and EBITDA of $41 million at a 5.6x multiple in 2014.

Acquisitive **WCA Waste** has been actively pursuing strategic tuck-ins in core markets, having reported the closing of nine tuck-in buys over the last twelve months, according to an April press release. Buys include **Royal Disposal** and **Caney Creek Disposal** collection operations in Houston, Texas; Kansas City C&D transfer station **Manchester Transfer**; **Lloyds Loads**, **Fort Scott Sanitation**, and **Behnen Enterprises**, tuck-ins for Missouri collection operations; **C&S Sanitation** in Little Rock, Arkansas; and **collection and recycling routes** from **Buzzard Waste** and **Abitibi**, respectively, in the Oklahoma City market.

SOURCE: S&P Capital IQ, PitchBook, Waste 360, Recycling Today, Equity Research, and Company Filings.

Notable M&A Activity in Special Waste

SOLID WASTE (continued)

Royal Disposal expanded the company's Houston footprint with 28 residential collection routes, 50,000 new customers, and approximately 75,000 tons annually.

WCA Waste has been backed by **Macquarie Infrastructure Partners** since 2012. Commenting on the company's growth, CEO William Caesar said, "We will continue to seek and pursue acquisition and other growth and efficiency opportunities that offer an attractive return on investment."

SPECIAL WASTE

In April 2015, **Nuverra Environmental Solutions** (NYSE:NES) completed the sale of **Thermo Fluids, Inc.** (TFI) to **Safety-Kleen**, a subsidiary of **Clean Harbors, Inc.** (NYSE:CLH), for approximately $85 million. TFI is a leading provider of route-based environmental services specializing in used oil recycling and used oil filter recycling. The company's range of environmental services also includes antifreeze products, parts washers, and solvent recycling. Its industrial waste management services include vacuum services, remediation, lab pack, and hazardous waste management. TFI services more than 20,000 customers through a network of 36 permitted facilities in 21 states.

The acquisition supports Clean Harbors' existing re-refining infrastructure and compliments Safety Kleen's environmental service business. TFI is expected to add approximately 50 million gallons of waste oil to Safety–Kleen's recycling and re-refining business.

In February 2015, **Republic Services Inc.** (NYSE:RSG) completed the acquisition of **Tervita, LLC**, a subsidiary of Calgary, Alberta-based **Tervita Corporation**, in a transaction valued at $485 million. Tervita is a U.S.-based environmental waste solutions provider serving oil and natural gas producers. The company provides oilfield waste services through the operation of treatment, recovery and disposal (TRD) facilities (32 percent of revenue); engineered landfills (22 percent); and salt water disposal (SWD) injection wells (3 percent), in addition to closed loop solids control systems (29 percent) and transportation services (14 percent). The Bakken (34 percent), Permian (26 percent), and Eagle Ford (19 percent) contribute more than 75 percent of revenue.

"The acquisition of this vertically integrated operation allows Republic Services to establish a significant platform in the E&P waste sector and positions us well for future growth opportunities," said Republic CEO Donald Slager, in a company press release. "Additionally, Tervita's environmentally committed operations complement our core competency and expertise in waste handling, recovery, and disposal." The acquisition will expand Republic's E&P revenue from $40 million (0.5 percent) to $190 million (2 percent).

An investor consortium, led by majority investor **Goldman Sachs Capital Partners**, acquired Tervita in 2007.
Transaction Multiples: 3.2x Revenue and 9.9x EBITDA (E)

In February 2015, **Newalta Corporation**'s (TSX:NAL) **Industrial Division** was acquired by **Birch Hill Equity Partners** for approximately $258 million. Newalta's Industrial Division consists of an integrated network of over 35 locations serving key markets coast to coast in Canada, offering various on-site industrial related services, a lead-acid battery recycling facility, an engineered non-hazardous solid waste landfill, and a used oil collection network and re-refining facility.

The divestiture will allow Newalta to focus its attention and resources in the oilfield as a pure-play energy services company. The former Industrial Division, now operating as **Terrapure Environmental**, will continue to provide a comprehensive range of environmental services and recycling solutions that includes recycling and management of hazardous and nonhazardous industrial waste; wastewater treatment and recycling; water treatment pond dredging and dewatering; tank cleaning and product recovery; used oil recycling; glycol and solvent recycling; household and automotive battery recycling; soil treatment and remediation; alternate fuel blending; offshore and onshore oil and gas waste and fluids management; and emergency response and spill clean-up.

Terms of the deal included Birch Hill assuming the asset retirement obligation associated with the Industrial Division.
Transaction Multiple: 6.0x EBITDA (E)

SOURCE: S&P Capital IQ, PitchBook, Waste 360, Recycling Today, Equity Research, and Company Filings.

Notable M&A Activity in EE&C

SPECIAL WASTE (continued)

Summit Environmental Services was acquired by **IFS Group**, a U.S.-based holding company backed by **The Riverside Company** and **True North Equity**, in February 2015. Newly-formed IFS Group has an interest in companies that provide non-discretionary industrial and field services. Summit Environmental provides industrial cleaning and excavation and field services. The acquisitions allows Summit Environmental's management team to continue running the business, while leveraging the financial resources and strategic expertise of Riverside Company and True North Equity to expand its geographic reach.

Evergreen Industrial Services, Inc., a portfolio company of **Platform Partners** announced it has acquired **GEM Mobile Treatment Services, Inc.** in January 2015. GEM offers a broad range of complementary services to Evergreen's industrial cleaning platform including thermal oxidation, vapor scrubbing, water treatment, and engineering services. The acquisition will expand Evergreen's geographic presence and bring a broader service offering to their customers.

In January 2015, **Clean Earth**, a subsidiary of **Compass Diversified Holdings** (NYSE:CODI) acquired **AES Environmental LLC** for $16.6 million. AES provides environmental services, managing hazardous and nonhazardous waste, as well as providing transportation and recycling services to industrial and government customers across the Midwest and Mid-Atlantic regions. The company operates two fully permitted hazardous waste facilities located in Calvert City, Kentucky and Morgantown, West Virginia.

Commenting on the transaction, CODI CEO Alan Offenberg, said, "AES will assist Clean Earth in providing environmental services to a larger customer base by penetrating new markets across the Midwest and Mid-Atlantic regions. "Going forward, we remain focused on using our strong balance sheet and financial flexibility to take advantage of other market opportunities by pursuing quality platform companies as well as additional add-ons."

AES reported net revenue of approximately $24.8 million for the trailing twelve months ended October 31, 2014. **Transaction Multiple: .67x Revenue**

ENVIRONMENTAL ENGINEERING & CONSULTING

In February 2015, **RPS Group plc**, a UK-based environmental consulting firm, acquired **Klotz Associates, Inc.**, a U.S.-based provider of engineering, planning, and environmental consulting services for $24.1 million. The acquisition enhances RPS' presence in North America, particularly in the transportation, public works, water/wastewater, and land development sectors as a result of Klotz's strong reputation in the market. **Transaction Multiple: 0.9x Revenue**

In January 2015, **Trinity Consultants**, a portfolio company of **Gryphon Investors**, acquired **Smith Aldridge**, an international environmental consulting company providing solutions to clients in various areas involving air, water, and solid waste services. The acquisition complements Trinity's specialization in air quality solutions, and enhances service capabilities for companies in the Southeastern United States.

In January 2015, **Environmental & Occupational Risk Management, Inc.** (EORM) was acquired by **British Standards Institution** (BSI). BSI provides standard-base solutions for clients globally. The acquisition provides an opportunity for BSI to offer Environmental, Health, and Safety (EHS) consulting services in the U.S., while simultaneously allowing EORM to expand its offering to existing clients in the U.S. and expand into Europe.

According to a BSI press release, the investment increases BSI's U.S. workforce from 290 to 450, will add over $30 million in revenue, and strengthens its geographical presence in the Western United States with 6 offices in California, Oregon, and Texas. EORM's technical expertise and sector specialization includes technology, construction, healthcare, and energy.

In January 2015, **Gulf Coast Specialty Energy Services** (GCSES), a portfolio company of **Grey Mountain Partners** acquired **Specialized Environmental Resources** (SER). SER is a leading service provider of geotechnical and environmental drilling, environmental remediation, amphibious excavation, and marine transportation in logistically difficult marine environments. GCSES expects to leverage SER's unique offering and superior safety record to better serve customers and expand geographic footprint while offering new products to SER clients.

SOURCE: S&P Capital IQ, PitchBook, Waste 360, Recycling Today, Equity Research, and Company Filings.

Notable M&A Activity in E-Waste and Metals Recycling

ENVIRONMENTAL ENGINEERING & CONSULTING (continued)

In December 2014, Denmark-based **Ramboll Group** acquired the U.S.-based environmental and health sciences consultancy **ENVIRON**, adding more than 1,500 environment, health, and safety specialists in 21 countries. The company serves primarily private sector clients in the areas of site solutions, air quality management, due diligence, health sciences, environmental impact assessments, and water services.

"ENVIRON is the perfect fit and will give our environmental profile a significant boost. The company brings a complementary service portfolio of high-end competencies with key synergies in especially air quality, health, site solutions, and due diligence. This gives us a both stronger and broader offering," said Ramboll Group CEO Jens-Peter Saul, commenting on the acquisition. "Together we will have access to some of the largest cities and multinational clients that enable us to compete for bigger and more challenging multidisciplinary projects. This will help accelerate future portfolio growth and create exciting opportunities that would otherwise be out of reach."

ENVIRON more than tripled its revenue over the past 10 years, achieving a CAGR of 12 percent since 2001. In 2014, ENVIRON projected gross revenue of approximately $300 million.

E-WASTE AND METALS RECYCLING

In February 2015, **Alter Trading Corporation** acquired the assets of **Wausau Scrap and Recycling Corporation**, a Wisconsin-based ferrous and non-ferrous metal recycler that has been in operation since 1951. In 2013, Alter acquired **All Metals Recycling LLC** in December and **Columbus Metal Industries** in September.

In February 2015, Adam Weitsman, CEO of **Upstate Shredding-Ben Weitsman Recycling** offered to acquire the remaining stake in scrap metal recycler and fabricator **Metalico Inc.** (AMEX:MEA). Weitsman's offer of $0.78 a share values the business at $121 million, representing a 6.9x multiple of NTM EBITDA.

Upstate Shredding completed the acquisition of Rome, New York-based **Murtagh Scrap Handling** in December 2014. Located between Syracuse and Utica in Oneida County, Murtagh will further expand Upstate Shredding's footprint in the Northeast. CEO Adam Weitsman called the acquisition "a very strategic move for the company", adding, "The location is perfectly situated in the state where we don't yet have as large a presence. We will be investing a lot of money into this location to bring the scrap yard to the high standards that our other yards have become known for." Weitsman indicated that the company will spend $3 million to renovate the yard, including new buildings, equipment and other improvements. Family-owned Murtagh was founded in 1986.

Market Update: Oil Collections & Re-refining

Navigating a "New Normal"

The recent downturn in the energy markets has had a significant impact on the used oil value chain, with companies regrouping from what insiders call a "sudden and unexpected collapse of the market". While operators confirm that used oil supply and demand dynamics remain relatively unchanged, deteriorating conditions have been exacerbated by an already weak base oil market, which has had a material effect on re-refining spreads.

"As a nation, we are going to continue to generate used oil which is going to require that we responsibly manage this material," commented Scott Parker, Executive Director at NORA. "The supply is going to continue to be there, but because the demand for used oil-derived products is not as robust today, you are seeing a lot of pressure being put on the industry."

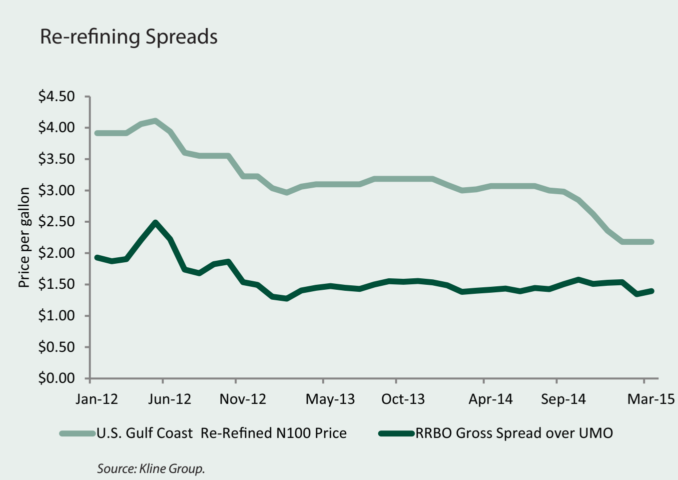
Brent crude was hovering near $50/bbl in January, a level which some insiders are pegging as a bottom, representing a steep slide from $100/bbl in 3Q14. Base oil spreads have been compressed, with participants citing a reduction of more than a dollar a gallon in Group II postings since last August. Conversely, feedstock costs (prices for used motor oil) have been rising. According to Roy Schumacher, a former Thermo Fluids employee who now heads Schumacher Consulting, the price paid to quick lubes for used oil spiked from $.95 per gallon in 2010 to $1.45 in 2013—a 52 percent increase, reported *Lube Report*.

Alvaro Ruiz, Vice President of Business Development/M&A at Vertex Energy (NasdaqCM:VTNR), offered, "The challenge has been that the declining prices in the energy markets didn't happen in a month. It was four consecutive months of decline, and that forced us to play catch up during all this time, since there is only so much that you can do at a time."

"Everybody is operating in a pretty tough environment," said a private equity investor in the industry. "The collection vertical has been taking a beating over the last six to nine months. The market deteriorated fairly rapidly with the slide in crude pricing, and collectors were caught with high-priced oil in their inventory." He continued, "The problem is really all around the pricing, not so much the volumes. At some point, it will stabilize."

"Because re-refining is subject to forces in the global base oil market, it is a price follower rather than a price leader," remarked Ian Moncrieff, a Vice President in the Energy Group at Kline Group. "Re-refiners can, to a certain extent, manage the way they contract and forward integrate into base oil blending which can hopefully hedge that." Some participants are critical of processors that extended too far into the base oil strategy, arguing that dynamics in the fuels market will potentially lead to less margin erosion and new growth opportunities.

"I don't think anyone in the used oil business has a material margin advantage right now that is making their mode of processing much more attractive and steering more volume their way, observed Greg Ray, Chief Operating Officer at Heritage-Crystal Clean (NasdaqGS:HCCI). HCCI acquired FCC Environmental (FCCE) last October, gaining approximately 54 million gallons and substantially increasing the volume the company collects and manages. Ray remarked, "We've retained some of FCCE's historic relationships with buyers who process the used oil we collect into vacuum gas oil (VGO) and recycled fuel oil (RFO), so we have perspective across the spectrum. We have the ability to sell more used oil into VGO production; however at present the margins aren't attractive enough to divert volume away from re-refining. Industrywide, margins are compressed because we haven't adjusted what we pay the generators enough to make up for the decline in the value of the product."



Searching for a Bottom

Concerns about global oversupply have market participants searching for a bottom. "Most equity analysts believe we already went through the bottom, and there will be a very gradual increase in crude prices. Only a small percentage believes that we have not seen the bottom yet," commented Juan Fritschy, Chief Executive Officer at Universal Environmental Services (Avista Oil USA). "I don't think the price of crude today reflects a rational equilibrium. It is an artificial equilibrium based more on financial trades than on the global supply and demand of oil. If we just follow the supply and demand fundamentals, particularly in the U.S, there is significantly more downwards room to go." Through our discussions, we learned that some companies are forecasting WTI prices to stay between $50 and $60/bbl until the end of 2016.

The Energy Information Administration, in its April 2015 *Short-Term Energy and Summer Fuels Outlook*, projects the Brent crude oil price will average $59/bbl in 2015 and $75/bbl in 2016. WTI prices in 2015 and 2016 are expected to average $7/bbl and $5/bbl, respectively, below Brent.

The highly anticipated July 2014 launch of Chevron's 25,000 bbl/day Group II base oil facility did not flood the U.S. market as was initially feared, said some insiders. "The Chevron plant was expected to supply exports to Europe and South America, and that seems to be what is happening," commented Greg Ray at Heritage-Crystal Clean. "In addition, in recent years Western Europe has announced at least three lube plant closures that have or will be taking place. Those together represent more base oil volume taken out of the system than Chevron adds to the system." "Chevron is exporting a significant amount of production, probably more than half," added Fritschy. "I think some of the base oil production facilities are running at lower capacity because we have not seen the kind of tsunami that was expected."

The reality is the global base oil market is oversupplied today and will remain challenged until Group I refineries shut down and demand grows into supply, insiders said. "We are in a situation now where there is a tremendous amount of overcapacity in the market, so the players are struggling to maintain volumes," commented Ian Moncrieff at Kline Group. "We have a fundamentally weak market demand for base oils as a whole. Unfortunately, re-refining is not immune to those market forces. "The base oil vertical is under tremendous pricing pressure because of the oversupply situation," observed Alvaro Ruiz at Vertex Energy. "Until the supply demand balance adjusts, that is going to hurt the profitability of base oil re-refiners in the short- and medium-term. And we see that today." Fritschy added, "It may be three years or more before the base oil market balances again. When it does, U.S. companies will have an advantage."

Margin Preservation

The big news story is margin preservation, with the U.S. market on a course to reverse escalating feedstock costs. Industry leaders initiated the drive to reset the market early in 2014, when Heritage-Crystal Clean (NasdaqGS:HCCI) began to reduce its pay-for-oil (PFO) pricing. Late in the year, announcements by Clean Harbors (NYSE:CLH) and Vertex Energy (NasdaqCM:VTNR) signaled a move to a zero-pay or charge-for-oil rate structure for collecting used oil—an effort to offset pricing pressure for used oil-derived products. Commenting on the shift, Safety-Kleen President Jerry Correll told *Lube Report*, "Safety-Kleen is taking a leadership approach to the market and realigning our pricing structure to levels that more accurately reflect the current environment." He continued, "Our goal is to protect and expand our margins, and ultimately return profitability in this segment to more historical levels. The actions...are necessary to achieve those goals." Controlling more than 200 million used oil gallons in its collection network, Safety-Kleen has the leverage to affect what participants characterize as a paradigm shift in the industry.

> *"The industry was overpaying for used oil for awhile. The steep slide in crude forced everybody to reduce what they were paying for used oil.*
>
> *—Private Equity Investor*

As the largest collector and re-refiner of used oil in North America, Safety-Kleen's move sent a very strong signal to the market. "The companies that are professionally run and have a responsibility to make a profit for their shareholders

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very quickly followed what Safety-Kleen did," remarked Juan Fritschy at Universal Environmental Services. "The larger players are telling the industry they are willing to give up a little market share to allow the market to re-adjust to current oil prices," said Brandon Velek, President at Intergulf Corporation. "I believe a lot of the smaller operators are likely to do the same and follow that new structure. They may actually come out of this downturn with decent margins."

While public announcements made by sizable operators in the space helped the swiftness of the paradigm shift, "It was long overdue," said a private equity investor in the industry, continuing, "The industry was overpaying for used oil and has been for a while. The steep slide in crude forced everybody to reduce what they are paying for used oil. That happened pretty quickly, but the slowest to move were the smaller mom and pops." Insiders point to competitors that were holding on to higher priced oil to insulate from the competitive threat and suffering margin erosion as a result.

"Reacting to lower product prices, the industry had to drive down the price paid to generators, and some companies announced specific targets around that. We had started a similar process earlier than most of the industry," said Greg Ray at Heritage-Crystal Clean. "When Brent was down at $50/bbl, we held the view that in order for the industry to maintain margins, collection prices would have to move through the zero point. Firms that did not go far enough were likely to suffer significant margin deterioration. Industrywide, it does not appear that margins have been maintained. I don't know if the industry has the discipline."

In its 4Q14 earnings call, Heritage-Crystal Clean reported significant progress in lowering its used oil collection costs. The average price paid to generators fell $.65 per gallon from 3Q14 and $.71 from 4Q13. Clean Harbors lowered its average pay-for-oil rate (PFO) in 4Q14 by $0.10 and $0.16 for the year. According to its 4Q14 filing, Vertex lowered its PFO at a street collection level by 75 percent year-over-year and by 90 percent from January 2014 to January 2015. The PFO to third-party suppliers was reduced by 50 percent. CEO Ben Cowart restated plans to move to a service fee model for the collection of used oil and environmental services.

"Generators that used to be paid $.80 or $1.00 a gallon went to practically zero in a matter of weeks. The entire market basically disappeared. Everybody stopped paying for used oil."

—Juan Fritschy

Universal Environmental Services

"This industry has gone through a cycle of boom and bust," said Ian Moncrieff at Kline Group. Kline tracks and analyzes trends in re-refining base oil spreads, which are derived using the Group II re-refined base oil price (Group II posted price adjusted for discounts) and No. 6 fuel oil, a proxy for used motor oil (UMO). According to Moncrieff, "In the last six months, when base oil prices dropped, the spread has remained the same. What that says is the UMO prices dropped by the same amount."

Moncrieff concurs that generators are suffering the consequences of weakening oil prices but points to the collapse in oil prices as the primary driver for lower UMO prices. "The industry recognizes they need a better paradigm for contracting. However, the collector-generator segment is still highly fragmented, and until there is more discipline in the ranks, I don't see a major sea change in the basis upon which used oil collection is contracted," he said.

The industry is drawing a line in the sand, insiders said, forcing collectors to charge at the generator level. "If they are not charging, they are not making any money with us," said an advanced processor.

"Every re-refiner made a fast decision to reduce the price of used oil so they could maintain a reasonable return on investment on their assets in operation," commented Fritschy. "Generators that used to be paid $.80 or $1.00 a gallon went to practically zero in a matter of weeks. The entire market basically disappeared. Everybody stopped paying for used oil."

The market is very rapidly adjusting to the "new normal", indicated Juan Fritschy at Universal Environmental Services, estimating that most generators are receiving no fees, and only a small percentage (less than 15 percent) are still receiving minimal fees for used oil. If the market continues to deteriorate, that percentage at zero will go to charge. Commenting in an interview with *Lube Report*, Fritschy said, "There is an abundance of used oil, and some generators are finding it difficult to find a collector to collect their oil. This trend is growing by the day. We think that, barring extraordinary events, the market will go to a charge-for-service model."

As the largest aggregator of used oil in the industry, Vertex Energy buys 120 to 130 million gallons from third party collectors, and its street collection capabilities now stand at approximately 20 million gallons per year. When the market collapsed, the company automatically reset pricing and discounts with those independent collectors as well as at the generator level, according to Alvaro Ruiz. "We have made tremendous progress," Ruiz offered. "If you look at the markets where we are collecting used oil today, we are already at a charge-for-service structure and are pleased with the discipline we have enforced with generators and also with third party independent collectors. Our collection business has not only reduced the pay-for-oil at the generator level, but also we have now implemented across the board charges for services—service fees, filters, antifreeze, all the incidentals—that we used to give away in addition to the pay-for-oil. Now we are collecting fees on that, so overall, we are at a negative all-in number for the generator business that we are collecting."

"If you look at the concentration that has happened in the industry—the consolidation of Thermo Fluids and FCC Environmental, the two largest independent collectors, into Safety-Kleen and Heritage-Crystal Clean—it should help to sustain this price reduction at the generator level, wherein the real upside for the industry lies," Ruiz said. According to Ruiz, the challenge for the industry is going to be maintaining the new pricing regime. "If crude oil goes back to $100/bbl, we need to be mindful of the macro supply and demand picture. There is more used oil available than outlets, so there is no reason to see a repeat of 2007-2008 and give more money to the generators."

"In the history of our industry, there have been many years when the industry charged for used oil services instead of paying generators for the used oil," commented Greg Ray at Heritage-Crystal Clean. "If market conditions dictate, and if industry players work to maintain their margins, there is no reason that we won't see those conditions again."

"The industry has a unique window of opportunity to reset prices and become again a service industry," remarked Ruiz. "At the end of the day, used oil is a regulated waste stream. It was a paradox that the industry was paying the generators of the waste for the privilege of hauling it." "Moving to a charge-for-services model for collected used motor oil is a key milestone in improving the long term prospects of the industry," said CEO Ben Cowart in an interview with *Lube Report*, "Given the recent price changes by the major stakeholders in the industry, our valued suppliers now have the ability to work with their used oil generators and reestablish their pricing structure for the services they provide, while maintaining the viability of their business and our industry."

"The industry has a unique window of opportunity to reset prices and become again a service industry. At the end of the day, used oil is a regulated waste stream. It was a paradox that the industry was paying the generators of the waste for the privilege of hauling it."

—Alvaro Ruiz
Vertex Energy

NORA's Scott Parker summarized, "Our mission as a trade association is to make sure that every gallon of used oil that is generated is responsibly collected and recycled. If it was not, then how much someone was paying for oil or not paying for oil would pale in comparison to having a billion gallons of this material flowing through our rivers and polluting our waterways. That would be the story. That is not the case because we have this infrastructure in place. As an industry, we need to be promoting the value of the service that we provide."

Diversification

Market conditions have led to more creativity in the marketplace, says Parker. "You are seeing entrepreneurial companies looking for ways to succeed. Some are adding value to products locally through recycling facilities. Others are looking at export opportunities." He continued, "The

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companies continue to exist. There is going to be that oil. We are going to have to find homes for the material."

"One of the reasons there is opportunity in this sector is because it is fragmented. You have companies that operate locally that are experts in their local market conditions," continued NORA's Scott Parker. "I have talked to a number of our mid-sized members. They are finding markets and repositioning their companies to hopefully take advantage of future opportunities that might come along."

New regulation is opening a vertical for advanced processors in low sulfur marine fuel. Effective January 2015, cargo ships will be prohibited from burning bunker fuel within a 200-mile radius along the coast line. "The directive is mandating the switch to a low sulfur fuel, so the alternative is a low sulfur diesel. That is a new niche we started to develop," commented Alvaro Ruiz at Vertex Energy. "We see other players in the industry making moves because it is always going to be more lucrative to sell fuel into the marine industry at a discount to diesel versus selling VGO to the refineries as a feedstock."

Clean Harbors announced in January 2015 the results of its strategic review, stating plans to establish a separate, dedicated lubricants business unit to accelerate its focus on base oil blending and appointing Jerry Correll to oversee the division. "We hope to realize higher returns from this business, further differentiate the EcoPower brand, increase the sustainability of our re-refining profits, and distance ourselves from the inherent volatility of the base oil market," said CEO Alan McKim. "We want to try to push more of our re-refined base stock production capacity into passenger car engine oils, heavy-duty engine oils, hydraulic fluids, etc., and by doing so, we'll be reducing our reliance on base stock sales into the marketplace." In its 4Q14 earnings call, Clean Harbors reported an increase in its blended percentage to 38 percent—up from 34 percent the previous quarter and 33 percent a year ago.

"Given the recent volatility in the industry, we've had to be extremely responsive and very entrepreneurial in trying to find new ways to ensure that our companies are healthy in order for us to be able to meet our mission, which is to collect those used oil gallons and protect the environment."

—Scott Parker
NORA

Vertex Energy raised $19 million in a private placement in 2014 to support the expansion of its West Coast operations in Bango, Nevada (still not owned yet but operating under a tolling and shared services agreement) and Bakersfield, California, acquired in its acquisition of Omega Holdings. The move will further its efforts in converting base oil into finished lubricants and developing a closed loop strategy. "We are formulating our finished lubricant packages and building our sales organization," said Ruiz, commenting on the investment.

"There are ways you can manage the business either through more sustainable volume throughput and/or improved reliability of margin," remarked Ian Moncrieff at Kline Group. "In the case of the government, there is a mandated level of re-refined oil. Safety-Kleen was the first to contract with federal and state governments to do closed loop recycling. They very smartly got into that business which is a way of creating value for re-refining oil and having captive access to multi-year contracts, which means some sustainability of volume and margin. Other large players are also trying to get into that business."

Capacity Expansion

The buzz around new greenfield projects has waned with the majority put on hold or cancelled. Project economics cannot generate support as capital providers are wary of oil and gas investments in the current environment. "We don't believe that you could get an attractive return on a new re-refining plant investment in today's environment," offered Greg Ray at Heritage-Crystal Clean. "However, it is relatively easier to get a return on an incremental investment in expansion of an existing facility." HCCI is targeting 4Q15 to complete the expansion of its re-refinery, increasing processing capacity to 75 million gallons from the current 65 million gallons.

Alvaro Ruiz at Vertex Energy commented, "As natural gas becomes more available in some regions and burners convert, you might find a surplus of used oil that cannot go into the export markets. It might justify bringing regional re-refining capacity online. I don't see that happening any time soon."

The abundance of cheap natural gas as an energy source has reduced the industrial burner outlet by half over the last five to six years, indicated Ruiz. "Every year, more are switching over to natural gas. That leads us to believe that the market is long, which should allow processors to source cheap used oil into their plants and generate attractive spreads, even in the current $50 to $60/bbl crude pricing environment."

New entrants

Synergy Hydrocarbon Recovery LLC announced in March 2015 the launch of a new advanced processing facility located in Kingsland, Georgia. The refinery has an annual processing capacity of 24 million gallons and will produce vacuum gas oil (VGO), low sulfur cutter, and a vacuum tower asphalt extender. "Our approach to the industry has always been one of forward thinking," said CEO Elliott Paul. "The refinery is state-of-the-art with the most modern environmental controls technology has to offer. This facility will provide a safe destination for over 24 million gallons of used oil collected annually throughout the Southeastern United States."

Intergulf Corporation launched a used oil re-refinery in March 2015. The LaPorte, Texas-based plant will have an annual processing capacity of 8.5 million gallons and will convert used oil into VGO. The re-refinery is the first in the Houston market. The industrial liquids management company operates a centralized waste treatment (CWT) facility that processes oily, non-hazardous and hazardous wastewater. The recovered oil coming off the CWT will feed its re-refinery. "We were very secure in the waste business and understand the fuel market so the logical extension was to build a re-refinery and upgrade the recovered oil," said President Brandon Velek.

"Because their profitability has been negatively impacted, collectors are facing cash constraints. It might be an opportune time to build out your collection base in this environment."

—Private Equity Investor

"Intergulf's focus is to be the go-to source on oil that needs significant advanced processing, which allows us to secure feedstock more cost effectively. We are installing state-of-the-art centrifuges that will allow us to accept even more problematic oil streams—oil that is higher in water, ash, and solids that typical re-refiners do not want," Velek said.

Industry Consolidation Continues

Recent industry consolidation has been significant with acquisition activity reflective of the continued path toward vertical integration. The big are getting bigger, with assets becoming increasingly concentrated in the hands of a few major players.

Discounted values, even for large collection assets, are indicative of the state of the industry, presenting a buying opportunity for well-capitalized strategic and financial buyers that are already in the market. Clean Harbors (NYSE:CLH) acquired Thermo Fluids in April 2015 for $85 million (50 million collected gallons), a steep discount to the $245 million paid by Nuverra Environmental Solutions (NYSE:NES) (fka Heckmann Corporation) in 2012. In October 2014, Heritage-Crystal Clean acquired FCC Environmental for $90 million (54 million collected gallons)— ~50 percent of the price it was sold for in 2008.

Opportunistic industry players are aggressively pursuing acquisitions and repositioning their companies in the downturn. "For the investors that are already in this space, it could be an excellent opportunity to buy collection assets at discounted prices," observed a private equity investor in the industry. "Because their profitability has been negatively impacted, collectors are facing cash constraints. It might be an opportune time to build out your collection base in this environment."

Vertex Energy is pursuing that path. "Our priority will be to bring collectors into our platform to achieve more equilibrium between street level and third-party collections," offered Alvaro Ruiz. Vertex has 140 million gallons of refining capacity and is currently collecting 20 million gallons. The

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remaining 120 million gallons is sourced from third party collectors. "We proved to the markets that we can do a better job consolidating collection units at a much better price, like what we have just done with the collection business of our Heartland acquisition," added Alvaro Ruiz at Vertex Energy. "We will look more at strategic local and regional collectors that fit within our refining branch and that can bring that value of the self-collected gallon to us." Vertex continues to grow organically, having expanded collections 20 to 25 percent annually over the last three years.

"Consolidation in the industry is long overdue. Where it has happened has primarily been in the re-refining assets," said Ian Moncrieff at Kline Group. Collection still has a long way to go because of its low capital intensity, Moncrieff indicated, referencing the three largest players—Safety-Kleen, Vertex, and Heritage-Crystal Clean—which control about 350 million gallons of collection. "We are talking about one-third of the industry. There is still a considerable amount of unconsolidated volume out there." According to Juan Fritschy at Universal Environmental Services, fragmentation will persist because of the low barriers to entry. "In a market like today when prices are depressed, the small- and medium-sized collectors are struggling. However, when the market rebounds, because the barriers to entry are so low, the market will ramp back up and you will have hundreds of collectors again."

"We have now seen a very meaningful consolidation, and that may change the landscape of the used oil business in the coming years," observed Greg Ray at Heritage-Crystal Clean. "If it means that there is more pricing discipline or rational behavior by competitors that may be a positive impact for the industry." Ray continued, "I don't believe we've yet seen recent major acquisitions lead to any direct changes in terms of pricing or business activity. Contrary to some expectations, when we acquired FCC Environmental (FCCE), we didn't take all of the used oil and move it to our re-refinery. We continued to sell most of it into the historic markets that had been sold into by FCCE. We did achieve some significant efficiencies in the collection business, and have indicated to analysts the cost synergies we hope to achieve, and we are making good progress in that direction."

> *"We have now seen a very meaningful consolidation, and that may change the landscape of the used oil business in the coming years."*
>
> *—Greg Ray Heritage-Crystal Clean*

"The smart players in this business are rising to the top. Safety-Kleen is the classic model of how to operate in this market: scale, vertical integration, and experience," said an industry analyst. "Vertex has been very opportunistic in its acquisition pursuits, picking up assets at attractive values and building a competitive used oil business of scale. Their next deal really has to be focused on feedstock supply," observed Moncrieff. "One of the success factors of this business is that you are as vertically integrated as possible into collection so you have much better control over your feedstock supply and pricing."

"Vertex has picked up several refineries and collection operations at a fraction of what they would have paid two years ago," said a private equity investor. "The $16.5 million deal for Heartland represents roughly 30 to 40 percent of replacement cost. It was a very good deal. Vertex is one to watch."

Smaller operators may struggle in the current environment, said companies surveyed; however, challenging market conditions have not produced a huge influx of sellers—yet. One reason is the buyer seller disconnect. While valuations are significantly lower than a year ago; seller expectations are still high, insiders said.

Some collectors have sustained significant losses over the last nine months and are looking at strategic options, including aligning with a vertically integrated platform, insiders said. "You will see more consolidation involving small local or regional collectors being acquired by the refiners," said Ruiz. "Many collectors are at a crossroads, having come to the realization that unless they align with a refining platform, the future is uncertain."

Along with margin pressure comes administrative challenges associated with moving to a charge-for-service model, should prices continue to decline. “Some companies do not have the systems in place, which may prompt the decision to sell. We may see some shakeout if collectors were holding a lot of oil and have sustained sizable inventory losses,” commented Greg Ray at Heritage-Crystal Clean. As the industry moves into a charge-for-service structure, liability exposure will start playing a role. Large generators are going to look to partner with reputable service providers that can offer warranties, indicated Alvaro Ruiz at Vertex Energy.

“Like the larger organizations, we invest heavily in safety and environmental compliance. We see the smaller players in the market place less emphasis in these areas and really erode margins,” observed Brandon Velek at Intergulf Corporation. “The recent consolidations should have a positive impact on the industry and may make for a more level playing field.”

Regulatory Change

PCB reform will be a key focus for 2015. NORA is continuing to work with EPA to revise federal Toxic Substances Control Act (TSCA) regulations around PCBs. “We are working as an industry with EPA toward some solutions,” said Scott Parker at NORA. “EPA values what our industry does and wants to encourage used oil recycling, but at the same time, make sure it is done in an environmentally sound manner.” Parker said the association has created best management practices, which if followed, would reduce potential company liability.

Within the last year, certain states have instituted bans on the use of vacuum tower asphalt extender (VTAE) sold into the asphalt market. NORA members have joined forces in an attempt to overturn the bans, forming a task force involved with developing the data and technical arguments to support the continued use of VTAE in paving materials. “The industry is mounting an aggressive effort to educate people, including the development of two VTAE specifications that we hope will be approved by the ASTM. We are having a lot of testing done to demonstrate that the use of VTAE as an asphalt ingredient enhances the final product characteristics,” Ray offered.

“Companies that can adjust their street pricing to customers will be able to restore margins. However, if the broader market doesn’t follow suit, then the leaders may end up suffering some erosion of market share. It’s a constant tug of war.”

—Greg Ray Heritage-Crystal Clean

“As an industry, our goal is to make sure that we are collecting every gallon. In order to do that, we need to make sure that we are doing our best to preserve markets for our material,” Parker commented.

Outlook

“If we are not already at the bottom, the bottom will come in the next three to six months, after which there will be a gradual improvement in the economics for processors. The industry is going to maintain more discipline in the pay-for-oil rate in order to earn a reasonable return on investment. It is going to be a cost control ride in the coming years.”
Juan Fritschy, Universal Environmental Services

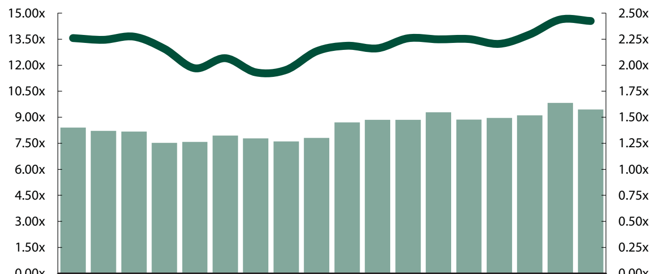
“It is not unrealistic to forecast crude in the $50 to $60/bbl range for the next year or two. As crude moves up, I think the zero-pay or charge-for-oil structure will revert to pay for oil. Maybe not as quickly as it went to the new model, but it will still move up.”
Private Equity Investor

“We have been able to reset prices and remove the value expectation out of the waste stream. We are all looking for a return to normalcy, where the value chain is restored and we can earn a reasonable return on investment.”
Alvaro Ruiz, Vertex Energy

“Our sense is the oil business is going to struggle along with tighter margins in the near-term than what we were experiencing in mid-2014. Companies that can adjust their street pricing to customers will be able to restore margins. However, if the broader market doesn’t follow suit, then the leaders may end up suffering some erosion of market share. It’s a constant tug of war.”
Greg Ray, Heritage-Crystal Clean

Relative Valuation Trends

Solid Waste - Vertically Integrated



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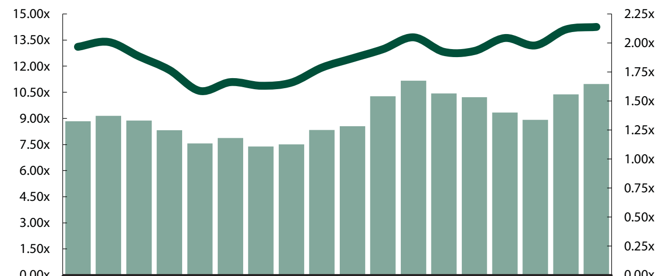
EV/EBITDA	8.4x	8.2x	8.2x	7.5x	7.6x	7.9x	7.8x	7.6x	7.8x	8.7x	8.8x	8.9x	9.3x	8.9x	9.0x	9.1x	9.8x	9.4x
EV/Revenue	2.3x	2.2x	2.3x	2.2x	2.0x	2.1x	1.9x	2.0x	2.1x	2.2x	2.2x	2.3x	2.2x	2.3x	2.2x	2.3x	2.4x	2.4x

Solid Waste - Waste-to-Energy



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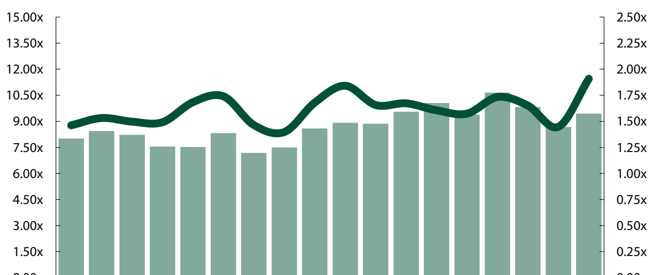
EV/EBITDA	8.8x	9.1x	8.9x	8.3x	7.6x	7.9x	7.4x	7.5x	8.3x	8.5x	10.3x	11.2x	10.4x	10.2x	9.3x	8.9x	10.4x	11.0x
EV/Revenue	2.0x	2.0x	1.9x	1.8x	1.6x	1.7x	1.6x	1.7x	1.8x	1.9x	1.9x	2.0x	1.9x	1.9x	2.0x	2.0x	2.1x	2.1x

Special Waste - Broadly Diversified



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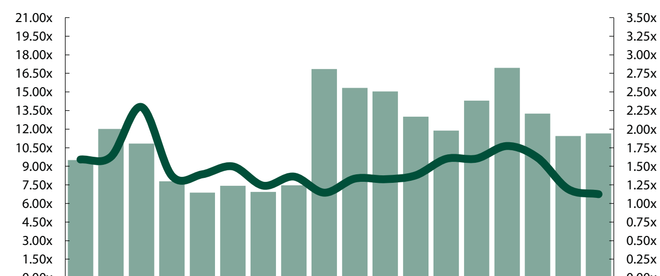
EV/Revenue	1.5x	1.5x	1.5x	1.5x	1.7x	1.7x	1.5x	1.4x	1.7x	1.8x	1.7x	1.7x	1.6x	1.6x	1.7x	1.7x	1.4x	1.9x

Special Waste - Other



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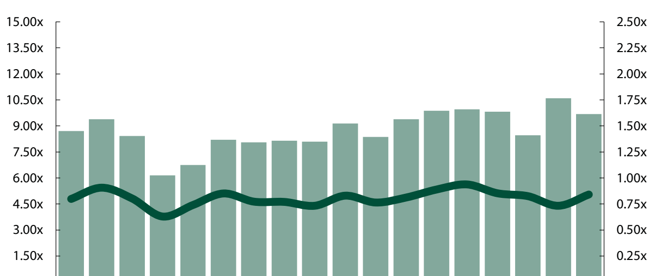
EV/Revenue	1.6x	1.6x	2.3x	1.4x	1.4x	1.5x	1.2x	1.4x	1.1x	1.3x	1.3x	1.4x	1.6x	1.6x	1.8x	1.6x	1.2x	1.1x

Environmental Engineering & Consulting



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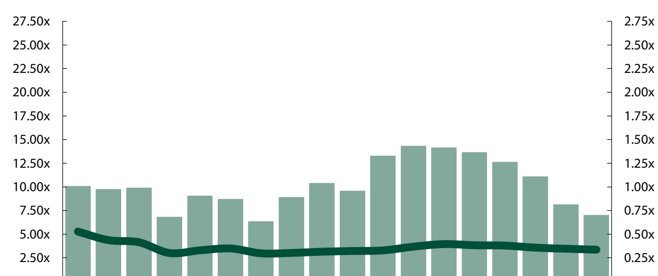
EV/EBITDA	8.7x	9.4x	8.4x	6.1x	6.7x	8.2x	8.0x	8.2x	8.1x	9.1x	8.4x	9.4x	9.9x	10.0x	9.8x	8.5x	10.6x	9.7x
EV/Revenue	0.8x	0.9x	0.8x	0.6x	0.7x	0.9x	0.8x	0.8x	0.7x	0.8x	0.8x	0.8x	0.9x	0.9x	0.9x	0.8x	0.7x	0.8x

E-Waste & Metals Recycling



	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11	Q1 12	Q2 12	Q3 12	Q4 12	Q1 13	Q2 13	Q3 13	Q4 13	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15
EV/EBITDA	10.1x	9.8x	9.9x	6.8x	9.1x	8.7x	6.4x	8.9x	10.4x	9.6x	13.3x	14.3x	14.2x	13.7x	12.6x	11.1x	8.2x	7.0x
EV/Revenue	0.5x	0.4x	0.4x	0.3x	0.3x	0.3x	0.3x	0.3x	0.3x	0.3x	0.3x	0.4x	0.4x	0.4x	0.4x	0.4x	0.3x	0.3x

BGL Environmental Services indices defined on Page 19.
SOURCE: S&P Capital IQ.

Environmental Services Insider

Industry Valuations

Relative Valuation Trends

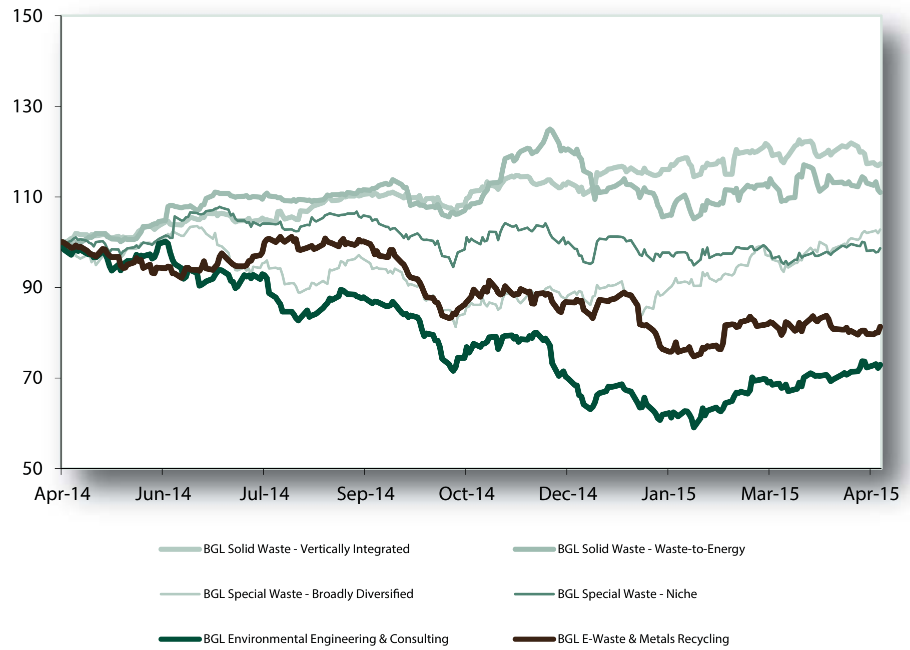
($ in millions, except per share data)			Current	% of	Market	Enterprise	Enterprise Value / TTM		Total Debt/	TTM	TTM Margins	
Company Name	**Country**	**Ticker**	**Stock Price (1)**	**52W High**	**Capitalization (2)**	**Value (3)**	**Revenue**	**EBITDA**	**EBITDA**	**Revenue**	**Gross**	**EBITDA**
SOLID WASTE (VERTICALLY-INTEGRATED)												
Waste Management, Inc.	United States	NYSE:WM	$52.66	94.2%	$24,097	$32,248	2.3x	9.1x	2.7x	$13,996	35.7%	25.3%
Republic Services, Inc.	United States	NYSE:RSG	41.23	98.0%	14,486	21,919	2.5x	9.3x	3.2x	8,881	36.9%	26.4%
Waste Connections Inc.	United States	NYSE:WCN	46.52	91.3%	5,782	7,774	3.7x	10.9x	2.8x	2,079	45.2%	34.3%
Progressive Waste Solutions Ltd.	Canada	TSX:BIN	28.54	90.2%	3,275	4,740	2.5x	9.2x	3.1x	2,009	38.0%	25.6%
Casella Waste Systems Inc.	United States	NasdaqGS:CWST	5.38	85.4%	218	752	1.4x	7.8x	***5.6x***	553	29.8%	17.4%
Median			**$41.23**	**91.3%**	**$5,782**	**$7,774**	**2.5x**	**9.2x**	**2.9x**	**$2,079**	**36.9%**	**25.6%**
Mean			**$34.87**	**91.8%**	**$9,571**	**$13,487**	**2.5x**	**9.3x**	**2.9x**	**$5,503**	**37.1%**	**25.8%**
SOLID WASTE (WASTE-TO-ENERGY)												
Covanta Holding Corporation	United States	NYSE:CVA	$20.97	82.7%	$2,797	$5,014	3.0x	12.5x	5.7x	$1,664	36.2%	24.1%
Shanks Group plc	United Kingdom	LSE:SKS	1.63	95.8%	647	1,167	1.2x	9.7x	5.8x	1,002	16.0%	12.0%
Median			**$11.30**	**89.2%**	**$1,722**	**$3,090**	**2.1x**	**11.1x**	**5.8x**	**$1,333**	**26.1%**	**18.1%**
Mean			**$11.30**	**89.2%**	**$1,722**	**$3,090**	**2.1x**	**11.1x**	**5.8x**	**$1,333**	**26.1%**	**18.1%**
SPECIAL WASTE (BROADLY DIVERSIFIED)												
Veolia Environnement S.A.	France	ENXTPA:VIE	$21.25	99.9%	$11,655	$21,900	0.8x	8.2x	***5.2x***	$28,905	16.2%	9.2%
Clean Harbors, Inc.	United States	NYSE:CLH	55.94	85.4%	3,296	4,444	1.3x	8.7x	2.7x	3,402	28.2%	15.0%
US Ecology, Inc.	United States	NasdaqGS:ECOL	49.43	94.3%	1,071	1,445	3.2x	12.7x	3.5x	447	32.6%	25.5%
Median			**$49.43**	**94.3%**	**$3,296**	**$4,444**	**1.3x**	**8.7x**	**3.1x**	**$3,402**	**28.2%**	**15.0%**
Mean			**$42.21**	**93.2%**	**$5,340**	**$9,263**	**1.8x**	**9.9x**	**3.1x**	**$10,918**	**25.7%**	**16.6%**
SPECIAL WASTE (OTHER)												
Stericycle, Inc.	United States	NasdaqGS:SRCL	$136.94	96.0%	$11,669	$13,226	5.0x	18.1x	2.2x	$2,649	44.5%	27.5%
Darling Ingredients Inc.	United States	NYSE:DAR	13.84	64.7%	2,287	4,428	1.1x	8.7x	4.2x	3,956	22.3%	12.9%
Secure Energy Services Inc.	Canada	TSX:SES	13.53	58.7%	1,829	2,170	1.2x	12.8x	2.1x	1,962	8.7%	8.7%
Newalta Corporation	Canada	TSX:NAL	13.10	69.4%	736	1,106	2.7x	10.5x	3.7x	428	32.7%	24.7%
Renewable Energy Group, Inc.	United States	NasdaqGS:REGI	9.20	74.8%	409	603	0.5x	5.9x	2.7x	1,274	12.6%	8.0%
Heritage-Crystal Clean, Inc	United States	NasdaqGS:HCCI	12.03	60.6%	268	326	1.0x	***20.6x***	5.0x	339	16.1%	4.7%
Nuverra Environmental Solutions, Inc.	United States	NYSE:NES	3.80	17.8%	106	690	1.3x	7.4x	***6.4x***	536	28.2%	17.3%
Vertex Energy, Inc.	United States	NasdaqCM:VTNR	2.54	22.6%	72	108	0.4x	NM	*NM*	259	5.5%	-3.0%
Perma-Fix Environmental Services Inc.	United States	NasdaqCM:PESI	3.53	68.0%	41	51	0.9x	***17.4x***	3.9x	57	20.9%	5.1%
Median			**$12.03**	**64.7%**	**$409**	**$690**	**1.1x**	**9.6x**	**3.7x**	**$536**	**20.9%**	**8.7%**
Mean			**$23.17**	**59.2%**	**$1,935**	**$2,523**	**1.6x**	**10.6x**	**3.4x**	**$1,273**	**21.3%**	**11.8%**
ENVIRONMENTAL ENGINEERING & CONSULTING												
Amec Foster Wheeler plc	United Kingdom	LSE:AMFW	$14.19	73.6%	$5,517	$6,779	1.1x	14.4x	4.4x	$6,223	13.0%	7.6%
Chicago Bridge & Iron Company N.V.	Netherlands	NYSE:CBI	48.97	58.3%	5,322	7,400	0.6x	5.9x	1.8x	13,173	11.7%	9.5%
AECOM	United States	NYSE:ACM	33.18	86.8%	5,159	9,691	0.9x	17.2x	***8.8x***	10,589	4.6%	5.3%
ARCADIS NV	Netherlands	ENXTAM:ARCAD	32.30	94.8%	2,650	3,235	1.1x	12.8x	3.4x	3,189	19.4%	7.9%
Tetra Tech Inc.	United States	NasdaqGS:TTEK	25.14	86.4%	1,550	1,654	0.9x	11.3x	1.4x	1,814	15.3%	8.1%
Cardno Limited	Australia	ASX:CDD	2.69	46.9%	444	685	0.6x	6.5x	2.8x	1,117	16.0%	9.5%
Great Lakes Dredge & Dock Corporation	United States	NasdaqGS:GLDD	5.96	66.6%	359	649	0.8x	8.8x	4.5x	807	11.5%	9.1%
TRC Companies Inc.	United States	NYSE:TRR	8.20	92.2%	249	239	0.6x	7.4x	0.1x	386	16.8%	8.4%
Median			**$19.66**	**80.0%**	**$2,100**	**$2,445**	**0.9x**	**10.1x**	**2.8x**	**$2,502**	**14.1%**	**8.2%**
Mean			**$21.33**	**75.7%**	**$2,656**	**$3,792**	**0.8x**	**10.5x**	**2.6x**	**$4,662**	**13.5%**	**8.2%**
E-WASTE & METALS RECYCLING												
Commercial Metals Company	United States	NYSE:CMC	$16.57	83.5%	$1,982	$3,212	0.5x	7.2x	3.5x	$6,897	11.4%	6.5%
Sims Metal Management Limited	Australia	ASX:SGM	9.00	88.0%	1,843	1,755	0.3x	***12.6x***	0.1x	5,678	10.0%	2.4%
ALBA SE	Germany	DB:ABA	58.54	80.5%	576	582	0.3x	NM	NM	2,173	8.4%	-1.6%
Schnitzer Steel Industries, Inc.	United States	NasdaqGS:SCHN	16.88	58.7%	452	762	0.3x	9.1x	3.8x	2,325	8.4%	3.6%
Industrial Services of America, Inc.	United States	NasdaqCM:IDSA	3.89	55.7%	31	46	0.4x	NM	NM	117	0.6%	-2.9%
Metalico Inc.	United States	AMEX:MEA	0.34	20.4%	25	101	0.2x	7.4x	***5.9x***	476	6.7%	2.8%
Median			**$12.78**	**69.6%**	**$514**	**$672**	**0.3x**	**7.4x**	**3.5x**	**$2,249**	**8.4%**	**2.6%**
Mean			**$17.54**	**64.4%**	**$818**	**$1,076**	**0.3x**	**7.9x**	**2.4x**	**$2,944**	**7.6%**	**1.8%**

NOTE: Figures in bold and italic type were excluded from median and mean calculation.
(1) As of 4/24/2015.
(2) Market Capitalization is the aggregate value of a firm's outstanding common stock.
(3) Enterprise Value is the total value of a firm (including all debt and equity).
SOURCE: S&P Capital IQ.

Industry Valuations

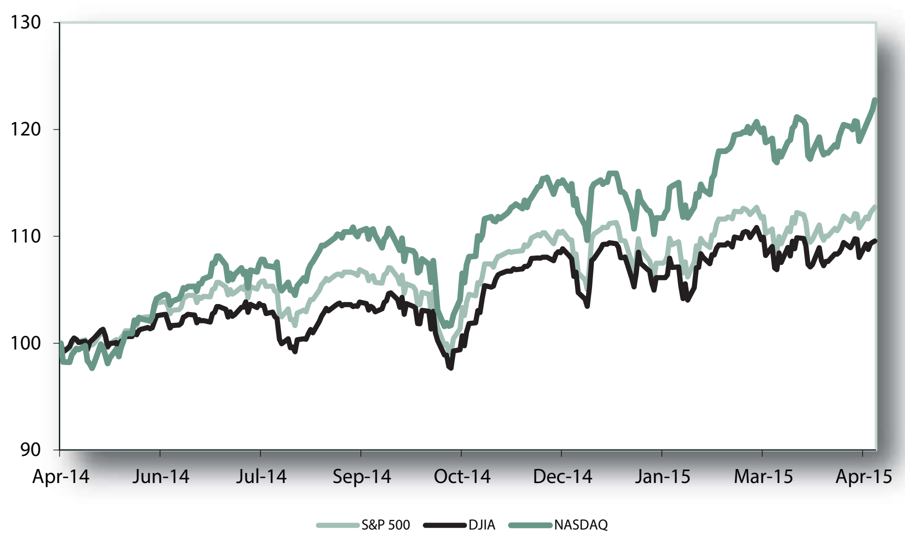
Sector Performance

By Sector



	1 Year
Solid Waste - Vertically Integrated	18.4%
Solid Waste - Waste-to-Energy	9.3%
Special Waste - Broadly Diversified	5.3%
Special Waste - Other	-3.1%
Environmental Engineering & Consulting	-27.7%
E-Waste & Metals Recycling	-16.9%

Overall Market



	1 Year
S&P 500	12.7%
DJIA	9.6%
NASDAQ	22.7%

Index: April 24, 2014 = 100.

SOURCE: S&P Capital IQ.

Global Environmental and Energy Services Practice

WASTE & RECYCLING

SOLID WASTE

- Collection and Hauling
- Transfer Stations
- Material Recovery Facilities
- Landfills

SPECIAL WASTE

- General ES/IS and Emergency Response
- Liquids / Greases / Oils
- ODS and Other Hazardous Streams

E-WASTE/METALS

- End-of-Life Destruction
- Remanufacturing
- Asset Management
- Data Destruction
- Scrap Metal

WASTE-TO-ENERGY

- Gasification
- Anaerobic Digestion
- Used Oil Collection and Re-Refining
- Biogas and Biofuels
- Renewables

ENVIRONMENTAL ENGINEERING & CONSULTING

- Remediation and Reclamation
- Health and Safety
- Sustainability
- Design Build, Operate
- Compliance
- Test and Audit

ENERGY

- Oilfield Environmental Services
- Pad Services
- Pipeline Services
- Utility Services
- Infrastructure Support Services
- Renewables

Representative Transactions

EORM
Environmental, Health, Safety and Sustainability Consulting
— acquired by —
bsi.
Brown Gibbons Lang & Company

Terra Renewal Wastewater Residuals Division
— a portfolio company of —
Saw Mill Capital
— acquired by —
Management and McLarty
Brown Gibbons Lang & Company

Weaver Express
Erosion Control Solutions
— acquired by —
filtrexx
Sustainable Technologies
Brown Gibbons Lang & Company

RR Waste Solutions
— obtained financing — provided by
Comerica Bank
and
Ironwood Capital
Patriot Capital, L.P.
Brown Gibbons Lang & Company

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