

NEWS RELEASE

PAR PACIFIC HOLDINGS REPORTS RECORD FOURTH QUARTER 2019 RESULTS

HOUSTON, February 25, 2020 - Par Pacific Holdings, Inc. (NYSE: PARR) ("Par Pacific" or the "Company") today reported its financial results for the fiscal year and quarter ended December 31, 2019.

Full Year 2019 Highlights

- Net Income of \$40.8 million, or \$0.80 per diluted share
- Record Adjusted Net Income of \$91.7 million, or \$1.79 per diluted share
- Adjusted EBITDA of \$260.4 million, reflecting record results across all operating segments
- Net cash provided by operations of \$105.6 million, or a record \$189.5 million excluding working capital impacts

Fourth Quarter 2019 Highlights

- Net Income of \$35.4 million, or \$0.68 per diluted share
- Record Adjusted Net Income of \$55.7 million, or \$1.02 per diluted share
- Record Adjusted EBITDA of \$94.0 million
- Extinguished \$31.2 million of convertible notes during the fourth quarter; total debt reduction of \$75.7 million post-closing the Washington Acquisition

Par Pacific reported net income of \$40.8 million, or \$0.80 per diluted share, for the full-year 2019, compared to \$39.4 million, or \$0.85 per diluted share, for the full year 2018. 2019 Adjusted Net Income was \$91.7 million, compared to \$49.3 million for 2018. 2019 Adjusted EBITDA was \$260.4 million, compared to \$132.1 million for 2018.

Par Pacific reported net income of \$35.4 million, or \$0.68 per diluted share, for the quarter ended December 31, 2019, compared to \$13.9 million, or \$0.30 per diluted share, for the same quarter in 2018. Fourth quarter 2019 Adjusted Net Income was \$55.7 million, compared to \$20.7 million in the fourth quarter of 2018. Fourth quarter 2019 Adjusted EBITDA was \$94.0 million, compared to \$41.0 million in the fourth quarter of 2018. A reconciliation of reported non-GAAP financial measures to their most directly comparable GAAP financial measures can be found in the tables accompanying this news release.

"Our record 2019 performance resulted from a string of successful acquisitions, creating an integrated downstream system," said William Pate, Par Pacific's President and Chief Executive Officer. "I want to thank our team for their focus on safety and environmental compliance, which has resulted in strong operational reliability. In a short period of time, we have created a balanced and formidable competitor that is well positioned for long term growth."

Refining

The Refining segment generated operating income of \$93.8 million for the full year 2019, compared to operating income of \$73.3 million for the full year 2018. Adjusted Gross Margin for the Refining segment in 2019 was \$403.2 million, compared to \$238.2 million in 2018.

Refining Adjusted EBITDA for the full year 2019 was \$168.6 million, compared to \$91.9 million for the full year 2018.

The Refining segment reported operating income of \$43.0 million in the fourth quarter of 2019, compared to operating income of \$19.7 million in the fourth quarter of 2018. Adjusted Gross Margin for the Refining segment was \$130.0 million in the fourth quarter of 2019, compared to \$65.4 million in the fourth quarter of 2018.

Refining Adjusted EBITDA was \$69.2 million in the fourth quarter of 2019, compared to \$27.9 million in the fourth quarter of 2018.

Hawaii

The 4-1-2-1 Singapore Crack Spread was \$4.34 per barrel in the fourth quarter of 2019, compared to \$8.23 per barrel in the fourth quarter of 2018. The Hawaii refineries' throughput in the fourth quarter of 2019 was a combined 111 thousand barrels per day (Mbpd). This compares to throughput of 78 Mbpd for the same quarter in 2018. Production costs were \$3.34 per throughput barrel in the fourth quarter of 2019, compared to \$3.47 per throughput barrel in the same period in 2018. We completed the acquisition of certain refining units from Island Energy Services on December 19, 2018.

Washington

The Pacific Northwest 5-2-2-1 Index averaged \$16.58 per barrel in the fourth quarter of 2019. The Washington refinery's throughput was 41 Mbpd and production costs were \$4.46 per throughput barrel in the fourth quarter of 2019. We completed the acquisition of U.S. Oil & Refining Co. on January 11, 2019.

Wyoming

During the fourth quarter of 2019, the Wyoming 3-2-1 Index averaged \$28.26 per barrel, compared to \$23.97 per barrel in the fourth quarter of 2018. The Wyoming refinery's throughput was 17 Mbpd in the fourth quarter of 2019, compared to 15 Mbpd in the fourth quarter of 2018. Production costs were \$5.77 per throughput barrel in the fourth quarter of 2019, compared to \$8.47 per throughput barrel in the same period in 2018.

Retail

The Retail segment reported operating income of \$49.2 million in 2019, compared to \$37.2 million in 2018. Adjusted Gross Margin for the Retail segment was \$126.6 million for 2019, compared to \$107.4 million in 2018.

For the full year 2019, Retail Adjusted EBITDA was \$59.3 million, compared to \$46.2 million for 2018.

For the full year 2019, the Retail segment reported fuel sales volumes of 125.3 million gallons, compared to sales of 116.7 million gallons for 2018.

The Retail segment reported operating income of \$12.7 million in the fourth quarter of 2019, compared to \$13.0 million in the fourth quarter of 2018. Adjusted Gross Margin for the Retail segment was \$32.5 million in the fourth quarter of 2019 and in the same quarter of 2018.

Retail Adjusted EBITDA was \$15.3 million in the fourth quarter of 2019, compared to \$15.5 million in the fourth quarter of 2018. The Retail segment reported sales volumes of 31.0 million gallons in the fourth quarter of 2019, compared to 30.8 million gallons in the same quarter of 2018.

Logistics

The Logistics segment generated operating income of \$59.1 million for the full year 2019, compared to \$33.4 million for 2018. Adjusted Gross Margin for the Logistics segment was \$87.1 million for the full year 2019, compared to \$48.0 million for 2018.

Adjusted EBITDA for the Logistics segment was \$76.1 million for 2019, compared to \$40.2 million for 2018.

The Logistics segment reported operating income of \$16.7 million in the fourth quarter of 2019, compared to \$7.0 million in the fourth quarter of 2018. Adjusted Gross Margin for the Logistics segment was \$24.1 million in the fourth quarter of 2019, compared to \$10.8 million in the same quarter of 2018.

Logistics Adjusted EBITDA was \$21.1 million in the fourth quarter of 2019, compared to \$8.9 million in the fourth quarter of 2018.

Laramie Energy

For the full year 2019, equity losses from Laramie Energy, LLC ("*Laramie*") were \$89.8 million, compared to equity earnings of \$9.5 million for 2018. Equity losses from Laramie, excluding Par's share of unrealized derivatives and our impairment expense associated with our investment in Laramie, were \$8.6 million in 2019, compared to earnings of \$10.6 million in 2018. Laramie's total net loss was \$380.5 million in 2019, compared to net income of \$6.3 million in 2018. Laramie's total Adjusted EBITDAX was \$73.8 million in 2019, compared to \$101.1 million in 2018.

Equity losses from Laramie in the fourth quarter of 2019 were \$4.9 million, compared to equity earnings of \$5.2 million in the fourth quarter of 2018. Laramie's total net loss was \$362.3 million in the fourth quarter of 2019, compared to net income of \$8.1 million in the fourth quarter of 2018. Laramie's total Adjusted EBITDAX was \$20.8 million in the fourth quarter of 2019, compared to \$29.2 million in the fourth quarter of 2018.

Liquidity

Net cash provided by operations totaled \$7.0 million and \$105.6 million for the three months and year ended December 31, 2019, respectively, compared to \$38.7 million and \$90.6 million for the three months and year ended December 31, 2018, respectively. Net cash provided by operations excluding working capital impacts was \$73.4 million and \$189.5 million for the three months and year ended December 31, 2019, respectively, compared to \$21.4 million and \$101.1 million for the three months and year ended December 31, 2018, respectively. At December 31, 2019, Par Pacific's cash balance totaled \$126.0 million, long-term debt totaled \$611.9 million, and total liquidity was \$241.4 million.

Conference Call Information

A conference call is scheduled for Wednesday, February 26, 2020 at 9:00 a.m. Central Time (10:00 a.m. Eastern Time). To access the call, please dial 1-877-407-3982 inside the U.S. or 1-201-493-6780 outside the U.S. and ask for the Par Pacific call. Please dial in at least 10 minutes early to register. The webcast may be accessed online through the Company's website at http://www.parpacific.com on the Investor Relations page. A telephone replay will be available until March 11, 2020 and may be accessed by calling 1-844-512-2921 inside the U.S. or 1-412-317-6671 outside the U.S. and using the conference ID 13698216.

About Par Pacific

Par Pacific Holdings, Inc. (NYSE: PARR), headquartered in Houston, Texas, owns and operates market-leading energy and infrastructure businesses. Par Pacific's strategy is to acquire and develop energy and infrastructure businesses in logistically complex markets. Par Pacific owns and operates one of the largest energy networks in Hawaii with 148,000 bpd of combined refining capacity, a logistics system supplying the major islands of the state and 91 retail locations. In the Pacific Northwest and the Rockies, Par Pacific owns and operates 60,000 bpd of combined refining capacity, related multimodal logistics systems, and 33 retail locations. Par Pacific also owns 46% of Laramie Energy, LLC, a natural gas production company with operations and assets concentrated in Western Colorado. More information is available at www.parpacific.com.

Forward-Looking Statements

This news release (and oral statements regarding the subject matter of this news release, including those made on the conference call and webcast announced herein) includes certain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are intended to qualify for the "safe harbor" from liability established by the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements include, without limitation, statements about: expected market conditions; expected refinery throughput; anticipated capital expenditures, including major maintenance costs, and their effect on our financial and operating results, including earnings per share and free cash flow; anticipated retail sales volumes and on-island sales; the anticipated financial and operational results of Laramie Energy, LLC; the amount of our discounted net cash flows and the impact of our NOL carryforwards thereon; our ability to identify, acquire and operate energy, related retailing and infrastructure companies with attractive competitive positions; the timing and expected results of certain development projects, including Par Pacific's investment in an isomerization unit and diesel hydrotreater, as well as the impact of such investments on Par Pacific's product mix and on-island sales; the anticipated financial and operating results of the assets acquired in the Island Energy Services transaction and the U.S. Oil & Refining Co. transaction and their effect on Par Pacific's cash flows and profitability (including free cash flow and earnings per share); and other risks and uncertainties detailed in Par Pacific's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and any other documents that Par Pacific files with the Securities and Exchange Commission (SEC). Additionally, forward looking statements are subject to certain risks, trends, and uncertainties, such as changes to financial condition and liquidity; the volatility of crude oil and refined product prices; operating disruptions at our refineries resulting from unplanned maintenance events or natural disasters; uncertainties inherent in estimating oil, natural gas and NGL reserves; environmental risks; and risks of political or regulatory changes. Par Pacific cannot provide assurances that the assumptions upon which these forward-looking statements are based will prove to have been correct. Should one of these risks materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those expressed or implied in any forward-looking statements, and investors are cautioned not to place undue reliance on these forward-looking statements, which are current only as of this date. Par Pacific does not intend to update or revise any forward-looking statements made herein or any other

forward-looking statements as a result of new information, future events or otherwise. The Company further expressly disclaims any written or oral statements made by a third party regarding the subject matter of this news release.

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Condensed Consolidated Statements of Operations

(Unaudited)

(in thousands, except per share data)

| | | e Moi Decem | Ended 31, | Year Decem | | |
|---|----------|----------------|---------------|--------------|------|-----------|
| | 201 | 9 | 2018 | 2019 | | 2018 |
| Revenues | \$ 1,399 | ,134 | \$ 879,112 | \$ 5,401,516 | \$ 3 | 3,410,728 |
| Operating expenses | | | | | | |
| Cost of revenues (excluding depreciation) | 1,225 | ,260 | 770,508 | 4,803,589 | 3 | 3,003,116 |
| Operating expense (excluding depreciation) | 81 | ,158 | 56,309 | 312,899 | | 215,284 |
| Depreciation, depletion, and amortization | 21 | ,018 | 13,638 | 86,121 | | 52,642 |
| General and administrative expense (excluding depreciation) | 11 | ,788 | 11,445 | 46,223 | | 47,426 |
| Acquisition and integration costs | | 379 | 6,804 | 4,704 | | 10,319 |
| Total operating expenses | 1,339 | ,603 | 858,704 | 5,253,536 | 3 | 3,328,787 |
| Operating income | 59 | ,531 | 20,408 | 147,980 | | 81,941 |
| Other income (expense) | | | | | | |
| Interest expense and financing costs, net | (17 | ,503) | (10,422) | (74,839) | | (39,768) |
| Debt extinguishment and commitment costs | (2 | 2,401) | (4,224) | (11,587) | | (4,224) |
| Other income, net | | 169 | 185 | 2,516 | | 1,046 |
| Change in value of common stock warrants | | (134) | 2,197 | (3,199) | | 1,801 |
| Change in value of contingent consideration | | | | _ | | (10,500) |
| Equity earnings (losses) from Laramie Energy, LLC | (| ,910) | 5,190 | (89,751) | | 9,464 |
| Total other income (expense), net | (24 | 1,779) | (7,074) | (176,860) | | (42,181) |
| Income (loss) before income taxes | 34 | ,752 | 13,334 | (28,880) | | 39,760 |
| Income tax benefit (expense) | | 687 | 552 | 69,689 | | (333) |
| Net Income | \$ 35 | 5,439 | \$ 13,886 | \$ 40,809 | \$ | 39,427 |
| Weighted-average shares outstanding | | | | | | |
| Basic | 51 | ,488 | 46,381 | 50,352 | | 45,726 |
| Diluted | 51 | ,772 | 46,409 | 50,470 | | 45,755 |
| Income per share | | | | | | |
| Basic | \$ | 0.68 | \$ 0.30 | \$ 0.80 | \$ | 0.85 |
| Diluted | \$ | 0.68 | \$ 0.30 | \$ 0.80 | \$ | 0.85 |

Balance Sheet Data

(Unaudited)

(in thousands)

| | Decen | nber 31, 2019 | Decem | ber 31, 2018 |
|---------------------------------|-------|---------------|-------|--------------|
| Balance Sheet Data | | _ | | |
| Cash and cash equivalents | \$ | 126,015 | \$ | 75,076 |
| Working capital (1) | | (115,866) | | 4,348 |
| Debt, including current portion | | 611,931 | | 392,640 |
| Total stockholders' equity | | 648,242 | | 512,329 |

⁽¹⁾ Working capital is calculated as (i) total current assets, excluding cash and cash equivalents less (ii) total current liabilities, excluding current portion of long-term debt.

Operating Statistics

The following table summarizes certain operational data:

| | | nths Ended ber 31, | Year Ended December 31, | | | |
|---|------------------|-----------------------|----------------------------|------------------|--|--|
| | 2019 (1) | 2018 (1) | 2019 (1) | 2018 (1) | | |
| Total Refining Segment | - | | | | | |
| Feedstocks Throughput (Mbpd) (2) (3) | 169.3 | 92.8 | 163.8 | 91.3 | | |
| Refined product sales volume (Mbpd) (2) | 181.9 | 103.4 | 176.8 | 100.3 | | |
| Hawaii Refineries | | | | | | |
| Combined Feedstocks Throughput (Mbpd) (3) | 111.4 | 78.0 | 109.0 | 74.9 | | |
| Par East Throughput (Mbpd) (3) | 69.6 | 72.0 | 71.5 | 73.4 | | |
| Par West Throughput (Mbpd) (3) | 41.8 | 42.1 | 37.5 | 42.1 | | |
| Yield (% of total throughput) | | | | | | |
| Gasoline and gasoline blendstocks | 22.8 % | 26.1 % | 23.0 % | 27.1 % | | |
| Distillates | 46.1 % | 44.8 % | 44.4% | 47.4% | | |
| Fuel oils | 21.7% | 22.1 % | 20.3 % | 17.8 % | | |
| Other products | 5.9 % | 3.6% | 8.7 % | 4.5 % | | |
| Total yield | 96.5 % | 96.6% | 96.4% | 96.8% | | |
| Refined product sales volume (Mbpd) | | | | | | |
| On-island sales volume | 123.3 | 81.3 | 114.1 | 74.6 | | |
| Exports sales volume | 2.2 | 6.5 | 5.7 | 9.0 | | |
| Total refined product sales volume | 125.5 | 87.8 | 119.8 | 83.6 | | |
| Adjusted Gross Margin per bbl (\$/throughput bbl) (4) | \$ 4.68 | \$ 7.03 | \$ 3.30 | \$ 5.37 | | |
| Production costs per bbl (\$/throughput bbl) (5) | 3.34 | 3.47 | 3.25 | 3.65 | | |
| DD&A per bbl (\$/throughput bbl) | 0.26 | 0.64 | 0.40 | 0.66 | | |
| Washington Refinery | | | | | | |
| Feedstocks Throughput (Mbpd) (2) | 40.7 | | 38.9 | _ | | |
| Yield (% of total throughput) | | | | | | |
| Gasoline and gasoline blendstocks | 23.3 % | % | 23.6 % | % | | |
| Distillate | 35.7 % | % | 35.6 % | % | | |
| Asphalt | 19.2 % | % | 18.9 % | <u>%</u> | | |
| Other products | 19.4% | % | 19.4% | % | | |
| Total yield | 97.6% | % | 97.5 % | % | | |
| Refined product sales volume (Mbpd) (2) | 41.0 | _ | 41.1 | _ | | |
| Adjusted Gross Margin per bbl (\$/throughput bbl) (4) | \$ 14.81 | \$ — | \$ 11.37 | \$ — | | |
| Production costs per bbl (\$/throughput bbl) (5) | 4.46 | | 4.52 | | | |
| DD&A per bbl (\$/throughput bbl) | 1.51 | | 1.56 | _ | | |
| Wyoming Refinery | | | | | | |
| Feedstocks Throughput (Mbpd) | 17.2 | 14.8 | 17.0 | 16.4 | | |
| Yield (% of total throughput) | | | | | | |
| Gasoline and gasoline blendstocks | | | | | | |
| | 51.3 % | 52.7 % | 49.6% | 49.5 % | | |
| Distillate | 51.3 % 43.5 % | 52.7 % 43.6 % | 49.6 % 44.5 % | 49.5 % 45.8 % | | |
| Distillate Fuel oils | | | | | | |

| | T | hree Mor Decem | | | Year E Decemb | | | | |
|---|----|-------------------|----|----------|------------------|----------|----|---------|--|
| | | 2019 (1) | 2 | 2018 (1) | 2 | 2019 (1) | 2 | 018 (1) | |
| Wyoming Refinery (continued) Total yield | | 97.2 % | | 97.8% | | 97.4% | | 97.7% | |
| · | _ | | _ | | _ | | _ | | |
| Refined product sales volume (Mbpd) | | 15.4 | | 15.6 | | 17.0 | | 16.7 | |
| Adjusted Gross Margin per bbl (\$/throughput bbl) (4) | \$ | 17.90 | \$ | 10.95 | \$ | 18.82 | \$ | 15.29 | |
| Production costs per bbl (\$/throughput bbl) (5) | | 5.77 | | 8.47 | | 6.32 | | 7.06 | |
| DD&A per bbl (\$/throughput bbl) | | 3.10 | | 2.75 | | 2.93 | | 2.39 | |
| Market Indices (\$ per barrel) | | | | | | | | | |
| 4-1-2-1 Singapore Crack Spread (6) | \$ | 4.34 | \$ | 8.23 | \$ | 6.68 | \$ | 7.22 | |
| 3-1-2 Singapore Crack Spread (7) | | 12.12 | | 10.79 | | 10.80 | | 10.90 | |
| Pacific Northwest 5-2-2-1 Index (8) | | 16.58 | | | | 15.02 | | | |
| Wyoming 3-2-1 Index (9) | | 28.26 | | 23.97 | | 24.90 | | 22.69 | |
| Crude Prices | | | | | | | | | |
| Brent crude price | \$ | 62.42 | \$ | 68.11 | \$ | 64.19 | \$ | 71.55 | |
| WTI crude price | | 56.87 | | 59.34 | | 57.08 | | 64.90 | |
| ANS | | 65.51 | | 69.09 | | 65.72 | | 72.16 | |
| Bakken Clearbrook | | 55.37 | | 51.31 | | 56.04 | | 62.36 | |
| WCS Hardisty | | 37.76 | | 25.31 | | 43.18 | | 38.33 | |
| Brent M1-M3 | | 1.39 | | (0.09) | | 1.00 | | 0.37 | |
| Retail Segment | | | | | | | | | |
| Retail sales volumes (thousands of gallons) (10) | | 30,983 | | 30,818 | 1 | 25,313 | 1 | 16,715 | |

- (1) Previously reported logistics pipeline throughput volumes have been removed from the Operating Statistics table post-closing of the Washington refinery acquisition as we have determined that pipeline throughput is no longer a relevant indicator of logistics segment profitability given the low weighting of pipeline movements at the Washington refinery. Operating income (loss) per bbl has also been removed from the table because we do not believe it to be an indicative measure of our refineries' profitability.
- (2) Feedstocks throughput and sales volumes per day for the Washington refinery for the three months and year ended December 31, 2019 are calculated based on the 92 and 355-day periods for which we owned the Washington refinery in 2019, respectively. The amounts for the total refining segment represent the sum of the Hawaii, Washington and Wyoming refineries' throughput or sales volumes averaged over the three months and the years ended December 31, 2019 and 2018.
- (3) Feedstocks throughput and sales volumes per day for each of the Hawaii refineries for the three months and year ended December 31, 2018 are calculated based on the 365-day period we owned the Par East refinery and the 13-day period for which we owned the Par West refinery, respectively. The amounts for the combined Hawaii refineries represent the sum of the Par East and Par West refineries' throughput averaged over the three months and the years ended December 31, 2019 and 2018.
- (4) We calculate Adjusted Gross Margin per barrel by dividing Adjusted Gross Margin by total refining throughput. Adjusted Gross Margin for our Washington refinery is determined under the last-in, first-out ("LIFO") inventory costing method. Adjusted Gross Margin for our other refineries is determined under the under the first-in, first-out ("FIFO") inventory costing method. Please see discussion of Adjusted Gross Margin below.
- (5) Management uses production costs per barrel to evaluate performance and compare efficiency to other companies in the industry. There is a variety of ways to calculate production costs per barrel; different companies within the industry calculate it in different ways. We calculate production costs per barrel by dividing all direct production costs, which include the costs to run the refinery including personnel costs, repair and maintenance costs, insurance, utilities, and other miscellaneous costs, by total refining throughput. Our production costs are included in Operating expense (excluding depreciation) on our condensed consolidated statement of operations, which also includes costs related to our bulk marketing operations.
- (6) The profitability of our Hawaii business is heavily influenced by crack spreads in the Singapore market. This market reflects the closest liquid market alternative to source refined products for Hawaii. Prior to establishing the 3-1-2 Singapore Crack

Spread in 2020, the 4-1-2-1 Singapore Crack Spread (or four barrels of Brent crude oil converted into one barrel of gasoline, two barrels of distillate (diesel and jet fuel) and one barrel of fuel oil) was the most representative market indicator for our Hawaii operations. See footnote 7 below for a discussion of the 3-1-2 Singapore Crack Spread.

- (7) After completing the acquisition of certain refining units from Island Energy Services on December 19, 2018, we began shifting our Hawaii production profile to supply the local utilities with low sulfur fuel oil and significantly reduced our high sulfur fuel oil yield. In 2020, following the implementation of IMO 2020, we established the 3-1-2 Singapore Crack Spread, or three barrels of Brent crude oil converted into one barrel of gasoline and two barrels of distillates (diesel and jet fuel), as a new benchmark for our Hawaii operations. By removing the high sulfur fuel oil reference in the index, we believe the 3-1-2 Singapore Crack Spread is the most representative market indicator of our current operations in Hawaii.
- (8) We believe the Pacific Northwest 5-2-2-1 Index is the most representative market indicator for our operations in Tacoma, Washington. The Pacific Northwest 5-2-2-1 Index is computed by taking two parts gasoline (sub-octane), two parts middle distillates (ULSD and jet fuel), and one-part fuel oil as created from a barrel of Alaskan North Slope crude. The 2019 prices for the year ended December 31, 2019 represent the price averaged over the periods from October 1, 2019 to December 31, 2019 and January 11, 2019 to December 31, 2019, respectively.
- (9) The profitability of our Wyoming refinery is heavily influenced by crack spreads in nearby markets. We believe the Wyoming 3-2-1 Index is the most representative market indicator for our operations in Wyoming. The Wyoming 3-2-1 Index is computed by taking two parts gasoline and one-part distillate (ULSD) as created from three barrels of West Texas Intermediate Crude Oil ("WTI"). Pricing is based 50% on applicable product pricing in Rapid City, South Dakota, and 50% on applicable product pricing in Denver, Colorado.
- (10) Retail sales volumes for the three months and year ended December 31, 2018 include the 92 and 284 days of retail sales volumes from Northwest Retail since its acquisition on March 23, 2018, respectively. The 2019 amounts represent the sum of the Hawaii and Northwest Retail sales volumes for the three months and the year ended December 31, 2019.

Non-GAAP Performance Measures

Management uses certain financial measures to evaluate our operating performance that are considered non-GAAP financial measures. These measures should not be considered a substitute for, or superior to, measures of financial performance prepared in accordance with GAAP and our calculations thereof may not be comparable to similarly titled measures reported by other companies.

Adjusted Gross Margin

Adjusted Gross Margin is defined as (i) operating income (loss) plus operating expense (excluding depreciation); impairment expense; inventory valuation adjustment (which adjusts for timing differences to reflect the economics of our inventory financing agreements, including lower of cost or net realizable value adjustments, the impact of the embedded derivative repurchase obligations, and purchase price allocation adjustments); DD&A; RINs loss (gain) in excess of net obligation (which represents the income statement effect of reflecting our RINs liability on a net basis); and unrealized loss (gain) on derivatives or (ii) revenues less cost of revenues (excluding depreciation) plus inventory valuation adjustment, unrealized loss (gain) on derivatives, and RINs loss (gain) in excess of net obligation. We define cost of revenues (excluding depreciation) as the hydrocarbon-related costs of inventory sold, transportation costs of delivering product to customers, crude oil consumed in the refining process, costs to satisfy our Renewable Identification Numbers ("RINs") obligations, and certain hydrocarbon fees and taxes. Cost of revenues (excluding depreciation) also includes the unrealized gain (loss) on derivatives and the inventory valuation adjustment that we exclude from Adjusted Gross Margin.

Management believes Adjusted Gross Margin is an important measure of operating performance and uses Adjusted Gross Margin per barrel to evaluate operating performance and compare profitability to other companies in the industry and to industry benchmarks. Management believes Adjusted Gross Margin provides useful information to investors because it eliminates the gross impact of volatile commodity prices and adjusts for certain non-cash items and timing differences created by our inventory financing agreements and lower of cost or net realizable value adjustments to demonstrate the earnings of the business before other fixed and variable costs, which are reported separately in Operating expense (excluding depreciation) and Depreciation, depletion, and amortization.

Adjusted Gross Margin should not be considered an alternative to operating income (loss), cash flows from operating activities, or any other measure of financial performance or liquidity presented in accordance with GAAP. Adjusted Gross Margin presented by other companies may not be comparable to our presentation since each company may define this term differently as they may include other manufacturing costs and depreciation expense in cost of revenues.

The following tables present a reconciliation of Adjusted Gross Margin to the most directly comparable GAAP financial measure, operating income (loss), on a historical basis, for selected segments, for the periods indicated (in thousands):

| Three months ended December 31, 2019 | F | Refining | L | ogistics | | Retail | | |
|---|--------|---|----------|--|----|--|--|--|
| Operating income | \$ | 42,980 | \$ | 16,725 | \$ | 12,718 | | |
| Operating expense (excluding depreciation) | | 60,893 | | 3,065 | | 17,200 | | |
| Depreciation, depletion, and amortization | | 13,253 | | 4,334 | | 2,606 | | |
| Inventory valuation adjustment | | 9,816 | | | | _ | | |
| RINs loss (gain) in excess of net obligation | | (359) | | | | _ | | |
| Unrealized loss (gain) on derivatives | | 3,465 | | | | _ | | |
| Adjusted Gross Margin (1) | \$ | 130,048 | \$ | 24,124 | \$ | 32,524 | | |
| Three months ended December 31, 2018 | F | Refining | L | ogistics | | Retail | | |
| Operating income | \$ | 19,676 | \$ | 6,987 | \$ | 12,987 | | |
| Operating expense (excluding depreciation) | | 37,458 | | 1,912 | | 16,943 | | |
| Depreciation, depletion, and amortization | | 8,310 | | 1,891 | | 2,521 | | |
| Inventory valuation adjustment | | 3,159 | | _ | | _ | | |
| RINs loss (gain) in excess of net obligation | | 3,136 | | | | _ | | |
| Unrealized loss (gain) on derivatives | | (6,346) | | | | | | |
| Adjusted Gross Margin (1) | \$ | 65,393 | \$ | 10,790 | \$ | 32,451 | | |
| | | | | | | | | |
| | | | | | | | | |
| Year Ended December 31, 2019 | F | Refining | _L | ogistics | | Retail | | |
| Year Ended December 31, 2019 Operating income | | Refining 93,781 | <u>L</u> | ogistics 59,075 | \$ | Retail 49,245 | | |
| | | | _ | | _ | | | |
| Operating income | | 93,781 | _ | 59,075 | _ | 49,245 | | |
| Operating income Operating expense (excluding depreciation) | | 93,781 234,582 | _ | 59,075 11,010 | _ | 49,245 67,307 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization | | 93,781 234,582 55,832 | _ | 59,075 11,010 | _ | 49,245 67,307 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment | | 93,781 234,582 55,832 13,441 | _ | 59,075 11,010 | _ | 49,245 67,307 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation | | 93,781 234,582 55,832 13,441 (3,398) | _ | 59,075 11,010 | _ | 49,245 67,307 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation Unrealized loss (gain) on derivatives | \$ | 93,781 234,582 55,832 13,441 (3,398) 8,988 | \$ | 59,075 11,010 17,017 — | \$ | 49,245 67,307 10,035 — | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation Unrealized loss (gain) on derivatives | \$ | 93,781 234,582 55,832 13,441 (3,398) 8,988 | \$ | 59,075 11,010 17,017 — | \$ | 49,245 67,307 10,035 — | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation Unrealized loss (gain) on derivatives Adjusted Gross Margin (1) | \$ | 93,781 234,582 55,832 13,441 (3,398) 8,988 403,226 | \$ | 59,075 11,010 17,017 — — 87,102 ogistics | \$ | 49,245 67,307 10,035 — — — 126,587 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation Unrealized loss (gain) on derivatives Adjusted Gross Margin (1) Year Ended December 31, 2018 | \$ | 93,781 234,582 55,832 13,441 (3,398) 8,988 403,226 | \$ | 59,075 11,010 17,017 — — 87,102 ogistics | \$ | 49,245 67,307 10,035 — — 126,587 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation Unrealized loss (gain) on derivatives Adjusted Gross Margin (1) Year Ended December 31, 2018 Operating income | \$ | 93,781 234,582 55,832 13,441 (3,398) 8,988 403,226 Refining 73,269 | \$ | 59,075 11,010 17,017 — 87,102 ogistics 33,389 | \$ | 49,245 67,307 10,035 — — 126,587 Retail 37,232 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation Unrealized loss (gain) on derivatives Adjusted Gross Margin (1) Year Ended December 31, 2018 Operating income Operating expense (excluding depreciation) | \$ | 93,781 234,582 55,832 13,441 (3,398) 8,988 403,226 Refining 73,269 146,320 | \$ | 59,075 11,010 17,017 — 87,102 ogistics 33,389 7,782 | \$ | 49,245 67,307 10,035 — — 126,587 Retail 37,232 61,182 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation Unrealized loss (gain) on derivatives Adjusted Gross Margin (1) Year Ended December 31, 2018 Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization | \$ | 93,781 234,582 55,832 13,441 (3,398) 8,988 403,226 Refining 73,269 146,320 32,483 | \$ | 59,075 11,010 17,017 — 87,102 ogistics 33,389 7,782 | \$ | 49,245 67,307 10,035 — — 126,587 Retail 37,232 61,182 | | |
| Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment RINs loss (gain) in excess of net obligation Unrealized loss (gain) on derivatives Adjusted Gross Margin (1) Year Ended December 31, 2018 Operating income Operating expense (excluding depreciation) Depreciation, depletion, and amortization Inventory valuation adjustment | \$ | 93,781 234,582 55,832 13,441 (3,398) 8,988 403,226 Refining 73,269 146,320 32,483 (16,875) | \$ | 59,075 11,010 17,017 — 87,102 ogistics 33,389 7,782 | \$ | 49,245 67,307 10,035 — — 126,587 Retail 37,232 61,182 | | |

⁽¹⁾ There were no impairment losses or severance costs recorded in Operating income (loss) by segment for the three months and the years ended December 31, 2019 and 2018.

Adjusted Net Income (Loss) and Adjusted EBITDA

Adjusted Net Income (Loss) is defined as Net Income excluding changes in the value of contingent consideration and common stock warrants, acquisition and integration costs, unrealized (gain) loss on derivatives, debt extinguishment and commitment costs, increase in (release of) tax valuation allowance and other deferred tax items, inventory valuation adjustment, severance costs, impairment expense, (gain) loss on sale of assets, Par's share of Laramie Energy's unrealized loss (gain) on derivatives, and RINs

loss (gain) in excess of net obligation. Beginning in 2019, Adjusted Net Income (Loss) also excludes impairment expense associated with our investment in Laramie Energy and our share of Laramie Energy's asset impairment losses in excess of our basis difference.

Adjusted EBITDA is Adjusted Net Income (Loss) excluding interest expense and financing costs, income taxes, DD&A, and equity losses (earnings) from Laramie Energy, excluding Par's share of Laramie's unrealized loss (gain) on derivatives. Beginning in 2019, equity losses (earnings) from Laramie Energy also excludes impairment of Par's investment and our share of Laramie Energy's asset impairment losses in excess of our basis difference.

We believe Adjusted Net Income (Loss) and Adjusted EBITDA are useful supplemental financial measures that allow investors to assess:

- The financial performance of our assets without regard to financing methods, capital structure, or historical cost basis;
- The ability of our assets to generate cash to pay interest on our indebtedness; and
- Our operating performance and return on invested capital as compared to other companies without regard to financing methods and capital structure.

Adjusted Net Income (Loss) and Adjusted EBITDA should not be considered in isolation, or as a substitute for, operating income (loss), net income (loss), cash flows provided by operating, investing, and financing activities, or other income or cash flow statement data prepared in accordance with GAAP. Adjusted Net Income (Loss) and Adjusted EBITDA presented by other companies may not be comparable to our presentation as other companies may define these terms differently.

The following table presents a reconciliation of Adjusted Net Income (Loss) and Adjusted EBITDA to the most directly comparable GAAP financial measure, net income (loss), on a historical basis for the periods indicated (in thousands):

| | Three Months Ended December 31, | | | | | Year Ended Decem | | |
|---|------------------------------------|---------|----|---------|----|------------------|----|----------|
| | | 2019 | | 2018 | | 2019 | | 2018 |
| Net income | \$ | 35,439 | \$ | 13,886 | \$ | 40,809 | \$ | 39,427 |
| Inventory valuation adjustment | | 9,816 | | 3,159 | | 13,441 | | (16,875) |
| RINs loss (gain) in excess of net obligation | | (359) | | 3,136 | | (3,398) | | 4,544 |
| Unrealized loss (gain) on derivatives | | 3,465 | | (6,346) | | 8,988 | | (1,497) |
| Acquisition and integration costs | | 379 | | 6,804 | | 4,704 | | 10,319 |
| Debt extinguishment and commitment costs | | 2,401 | | 4,224 | | 11,587 | | 4,224 |
| Changes in valuation allowance and other deferred tax items (1) | | 1,628 | | (660) | | (68,792) | | (660) |
| Change in value of common stock warrants | | 134 | | (2,197) | | 3,199 | | (1,801) |
| Change in value of contingent consideration | | | | | | | | 10,500 |
| Impairments of Laramie Energy, LLC (2) | | 1,637 | | | | 83,152 | | _ |
| Par's share of Laramie Energy's unrealized loss (gain) on derivatives (2) | | 1,160 | | (1,282) | | (1,969) | | 1,158 |
| Adjusted Net Income (3) | | 55,700 | | 20,724 | | 91,721 | | 49,339 |
| Depreciation, depletion, and amortization | | 21,018 | | 13,638 | | 86,121 | | 52,642 |
| Interest expense and financing costs, net | | 17,503 | | 10,422 | | 74,839 | | 39,768 |
| Equity losses (earnings) from Laramie Energy, LLC, excluding Par's share of unrealized loss (gain) on derivatives and impairment losses | | 2,113 | | (3,908) | | 8,568 | | (10,622) |
| Income tax expense (benefit) | | (2,315) | | 108 | | (897) | | 993 |
| Adjusted EBITDA | \$ | 94,019 | \$ | 40,984 | \$ | 260,352 | \$ | 132,120 |

⁽¹⁾ Includes increases in (releases of) net valuation allowance including changes associated with business combinations and changes in deferred tax balances that are not offset by changes in valuation allowance. These tax expenses (benefits) are included in Income tax benefit (expense) on our Condensed Consolidated Statements of Operations.

⁽²⁾ Includes impairments losses on our investment in Laramie Energy and our share of Laramie Energy's asset impairment losses in excess of our basis difference. These impairment losses are included in Equity earnings (losses) from Laramie Energy, LLC on our Condensed Consolidated Statements of Operations.

(3) For the three months and year ended December 31, 2019 and 2018, there were no severance costs or (gain) loss on sale of assets.

The following table sets forth the computation of basic and diluted Adjusted Net Income (Loss) per share (in thousands, except per share amounts):

| | Three Months Ended December 31, | | | | | Year Ended December 31, | | | | |
|---|------------------------------------|--------|----|--------|----|-------------------------|----|--------|--|--|
| | | 2019 | | 2018 | | 2019 | | 2018 | | |
| Adjusted Net Income (loss) | \$ | 55,700 | \$ | 20,724 | \$ | 91,721 | \$ | 49,339 | | |
| Undistributed Adjusted Net Income allocated to participating securities (1) | | 550 | | 284 | | 984 | | 695 | | |
| Adjusted Net Income attributable to common stockholders | | 55,150 | | 20,440 | | 90,737 | | 48,644 | | |
| Plus: effect of convertible securities | | 1,833 | | 2,722 | | 8,978 | | | | |
| Numerator for diluted income per common share | \$ | 56,983 | \$ | 23,162 | \$ | 99,715 | \$ | 48,644 | | |
| | | | | | | | | | | |
| Basic weighted-average common stock shares outstanding | | 51,488 | | 46,381 | | 50,352 | | 45,726 | | |
| Add dilutive effects of common stock equivalents | | 4,379 | | 6,417 | | 5,240 | | 29 | | |
| Diluted weighted-average common stock shares outstanding | | 55,867 | | 52,798 | | 55,592 | | 45,755 | | |
| Basic Adjusted Net Income (loss) per common share | \$ | 1.07 | \$ | 0.44 | \$ | 1.80 | \$ | 1.06 | | |
| Diluted Adjusted Net Income (loss) per common share | \$ | 1.02 | \$ | 0.44 | \$ | 1.79 | \$ | 1.06 | | |

⁽¹⁾ Participating securities include restricted stock that has been issued but has not yet vested.

Adjusted EBITDA by Segment

Adjusted EBITDA by segment is defined as Operating income (loss) by segment excluding depreciation, depletion, and amortization expense, inventory valuation adjustment, unrealized loss (gain) on derivatives, severance costs, acquisition and integration costs, other income/expense, and RINs loss (gain) in excess of net obligation. Adjusted EBITDA for the Corporate and Other segment also includes Other income, net, which is presented below operating income (loss) on our consolidated statements of operations.

We believe Adjusted EBITDA by segment is a useful supplemental financial measure to evaluate the economic performance of our segments without regard to financing methods, capital structure, or historical cost basis. The following table presents a reconciliation of Adjusted EBITDA to the most directly comparable GAAP financial measure, operating income (loss), on a historical basis, for selected segments, for the periods indicated (in thousands):

| Three | Months | Ended | December 31 | 2019 |
|-------|--------|-------|-------------|------|

| | Re | efining |] | Logistics | Retail | orporate d Other |
|--|----|---------|----|-----------|--------------|---------------------|
| Operating income (loss) by segment | \$ | 42,980 | \$ | 16,725 | \$ 12,718 | \$ (12,892) |
| Depreciation, depletion, and amortization | | 13,253 | | 4,334 | 2,606 | 825 |
| Inventory valuation adjustment | | 9,816 | | _ | | |
| RINs loss (gain) in excess of net obligation | | (359) | | _ | | |
| Unrealized loss (gain) on derivatives | | 3,465 | | _ | | |
| Acquisition and integration costs | | | | _ | | 379 |
| Other income/expense | | _ | | | _ | 169 |
| Adjusted EBITDA (1) | \$ | 69,155 | \$ | 21,059 | \$ 15,324 | \$ (11,519) |

Three Months Ended December 31, 2018

| R | efining | Lo | ogistics | | Retail | | orporate id Other |
|----|---------|------------------------------------|--|---|---|---|--|
| \$ | 19,676 | \$ | 6,987 | \$ | 12,987 | \$ | (19,242) |
| | 8,310 | | 1,891 | | 2,521 | | 916 |
| | 3,159 | | _ | | | | _ |
| | 3,136 | | _ | | | | _ |
| | (6,346) | | _ | | | | _ |
| | | | | | | | 6,804 |
| | | | | | | | 185 |
| \$ | 27,935 | \$ | 8,878 | \$ | 15,508 | \$ | (11,337) |
| | • | 8,310 3,159 3,136 (6,346) | \$ 19,676 \$ 8,310 3,159 3,136 (6,346) — — | \$ 19,676 \$ 6,987 8,310 1,891 3,159 — 3,136 — (6,346) — — | \$ 19,676 \$ 6,987 \$ 8,310 1,891 3,159 — 3,136 — (6,346) — — — — — | \$ 19,676 \$ 6,987 \$ 12,987 8,310 1,891 2,521 3,159 — — 3,136 — — (6,346) — — — — | Refining Logistics Retail and second sec |

Year Ended December 31, 2019

| | 1 | Refining | L | ogistics | Retail | Corporate and Other | | |
|--|----|----------|----|----------|--------------|---------------------|----------|--|
| Operating income (loss) by segment | \$ | 93,781 | \$ | 59,075 | \$ 49,245 | \$ | (54,121) | |
| Depreciation, depletion and amortization | | 55,832 | | 17,017 | 10,035 | | 3,237 | |
| Inventory valuation adjustment | | 13,441 | | _ | _ | | | |
| RINs loss (gain) in excess of net obligation | | (3,398) | | _ | _ | | _ | |
| Unrealized loss (gain) on derivatives | | 8,988 | | | | | | |
| Acquisition and integration costs | | | | | | | 4,704 | |
| Other income/expense | | | | | | | 2,516 | |
| Adjusted EBITDA (1) | \$ | 168,644 | \$ | 76,092 | \$ 59,280 | \$ | (43,664) | |

Year Ended December 31, 2018

| | R | efining | Logistics | Retail | orporate nd Other |
|--|----|----------|--------------|--------------|----------------------|
| Operating income (loss) by segment | \$ | 73,269 | \$ 33,389 | \$ 37,232 | \$ (61,949) |
| Depreciation, depletion and amortization | | 32,483 | 6,860 | 8,962 | 4,337 |
| Inventory valuation adjustment | | (16,875) | _ | _ | _ |
| RINs loss (gain) in excess of net obligation | | 4,544 | | _ | _ |
| Unrealized loss (gain) on derivatives | | (1,497) | | _ | _ |
| Acquisition and integration costs | | | | | 10,319 |
| Other income/expense | | | _ | _ | 1,046 |
| Adjusted EBITDA (1) | \$ | 91,924 | \$ 40,249 | \$ 46,194 | \$ (46,247) |

⁽¹⁾ There were no impairment losses or severance costs recorded in Operating income (loss) by segment for the three months and the years ended December 31, 2019 and 2018.

Net Cash Provided by Operations Excluding Working Capital Impacts

Net Cash Provided by Operations Excluding Working Capital Impacts is defined as cash provided by operations less net changes in operating assets and liabilities. We believe Net Cash Provided by Operations Excluding Working Capital Impacts is a useful supplemental financial measure to evaluate our ability to generate cash to repay our indebtedness or make discretionary investments. Net Cash Provided by Operations Excluding Working Capital Impacts should be considered in addition to, rather than as a substitute for, net income as a measure of our financial performance and net cash provided by Operations as a measure of our liquidity. Net Cash Provided by Operations Excluding Working Capital Impacts presented by other companies may not be comparable to our presentation as other companies may define these terms differently.

The following table presents a reconciliation of Net Cash Provided by Operations Excluding Working Capital Impacts to the most directly comparable GAAP financial measure, Cash provided by (used in) operations, on a historical basis, for the periods indicated (in thousands):

| | Three Months Ended December 31, | | | | Year Ended December 31, | | | |
|---|---------------------------------|----------|------|--------|-------------------------|----------|----|----------|
| | 2019 2018 | | 2019 | | 2018 | | | |
| Net cash provided by (used in) operating activities | \$ | 6,998 | \$ | 38,720 | \$ | 105,630 | \$ | 90,620 |
| Less: Net changes in operating assets and liabilities | | (66,448) | | 17,354 | | (83,856) | | (10,514) |
| Net cash provided by (used in) operations excluding working capital impacts | \$ | 73,446 | \$ | 21,366 | \$ | 189,486 | \$ | 101,134 |

Laramie Energy Adjusted EBITDAX

Adjusted EBITDAX is defined as net income (loss) excluding commodity derivative loss (gain), loss (gain) on settled derivative instruments, interest expense, non-cash preferred dividend, depreciation, depletion, amortization, and accretion, exploration and geological and geographical expense, bonus accrual, equity-based compensation expense, loss (gain) on disposal of assets, pipeline (payment) deficiency accrual, and expired acreage (non-cash). We believe Adjusted EBITDAX is a useful supplemental financial measure to evaluate the economic and operational performance of exploration and production companies such as Laramie Energy.

The following table presents a reconciliation of Laramie Energy's Adjusted EBITDAX to the most directly comparable GAAP financial measure, net income (loss) for the periods indicated (in thousands):

| | | oths Ended ber 31, | Year Ended December 31, | | | |
|--|--------------|-----------------------|----------------------------|------------|--|--|
| | 2019 | 2018 | 2019 | 2018 | | |
| Net income (loss) | \$ (362,335) | \$ 8,054 | \$ (380,474) | \$ 6,347 | | |
| Commodity derivative loss (gain) | 1,833 | 9,973 | 1,193 | 13,571 | | |
| Loss (gain) on settled derivative instruments | 687 | (12,613) | (5,476) | (9,509) | | |
| Interest expense and loan fees | 2,336 | 2,966 | 11,879 | 9,726 | | |
| Non-cash preferred dividend | 1,573 | 1,234 | 4,115 | 4,689 | | |
| Depreciation, depletion, amortization, and accretion | 20,236 | 14,547 | 85,189 | 68,961 | | |
| Impairment loss | 355,220 | _ | 355,220 | _ | | |
| Exploration and geological and geographical expense | 84 | 75 | 330 | 351 | | |
| Bonus accrual | (1,113) | 862 | (2,154) | 554 | | |
| Equity-based compensation expense | (29) | 71 | 122 | 3,248 | | |
| Loss (gain) on disposal of assets | 23 | _ | 1,478 | (809) | | |
| Pipeline (payment) deficiency accrual | _ | 1,167 | (1,162) | (11) | | |
| Expired acreage (non-cash) | 2,300 | 2,886 | 3,536 | 4,019 | | |
| Total Adjusted EBITDAX | \$ 20,815 | \$ 29,222 | \$ 73,796 | \$ 101,137 | | |