

Vehicle Folder: 2019 ram 1500  
 Date: 09-Sep-2019  
 Time: 16:58:12  
 Run ID: stock pull  
 Run No: 1

Correction Method: SAE

Run Comment:

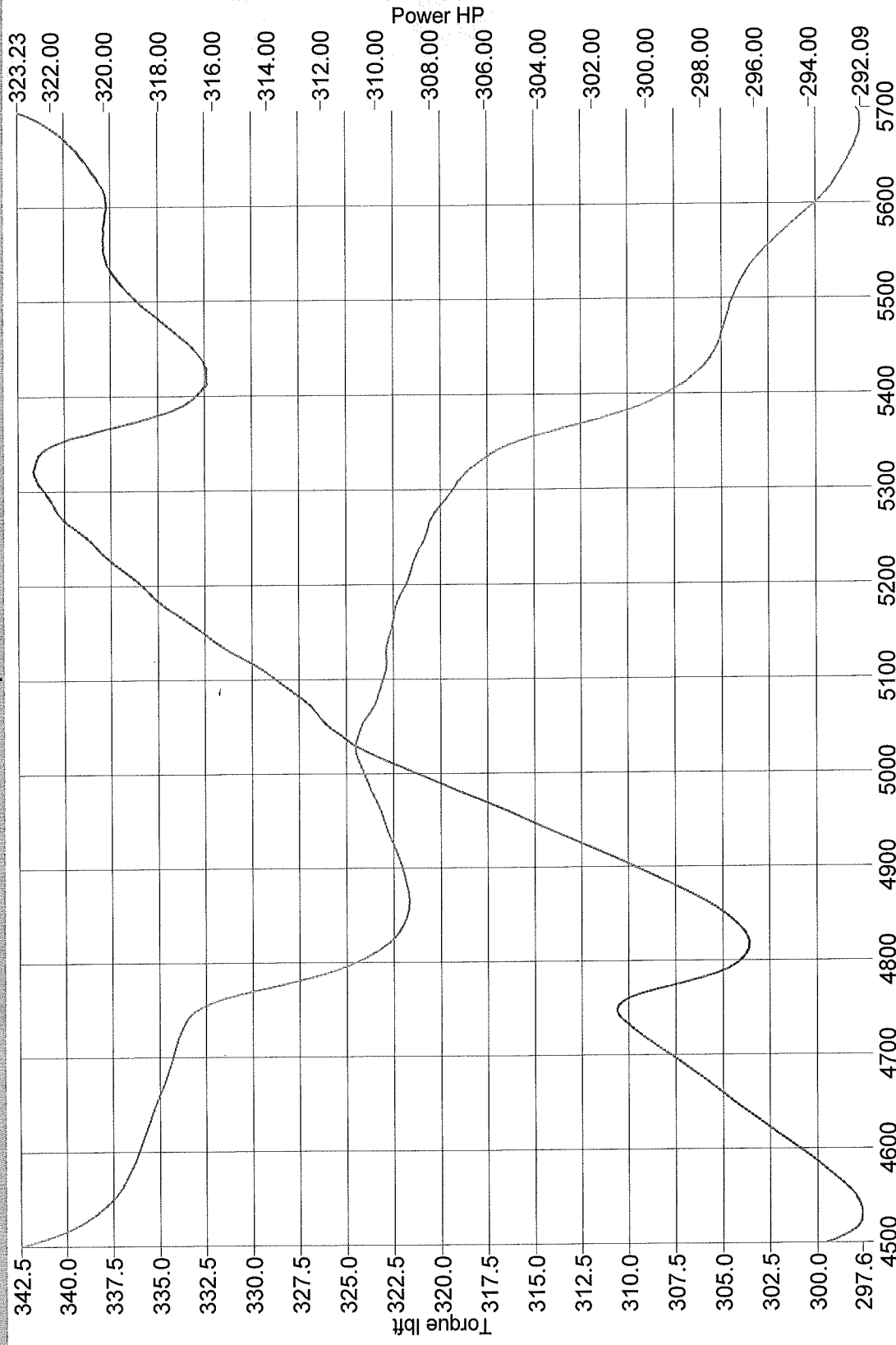
Vehicle Specification  
 Wheel Diameter (mm): 600.0  
 Weight (Kg): 1400.00  
 Drive Ratio: 6.61000000  
 Trans.C. Factor: 1.000000  
 Gearbox: MANUAL  
 Gear: 4  
 Control Mode: CUSTOM



| EngRPM | Torque<br>lbft | Power<br>HP | Temp<br>°F | MAP<br>PSI | Lambda | AFR  | PCRatio<br>P/PC | Time<br>sec | Baro<br>InHg | T.Effort<br>lb |
|--------|----------------|-------------|------------|------------|--------|------|-----------------|-------------|--------------|----------------|
| 4500   | 342.459        | 293.419     | 70.2       | -0.12      | 0.00   | 0.00 | 1.06267         | 0.000       | 28.786       | 2299.87        |
| 4501   | 342.271        | 293.322     | 70.2       | -0.12      | 0.00   | 0.00 | 1.06266         | 0.006       | 28.786       | 2298.61        |
| 4550   | 337.468        | 292.355     | 70.1       | -0.14      | 0.00   | 0.00 | 1.06257         | 0.213       | 28.785       | 2266.35        |
| 4600   | 336.122        | 294.362     | 70.1       | -0.17      | 0.01   | 0.00 | 1.06253         | 0.384       | 28.786       | 2257.31        |
| 4650   | 335.231        | 296.800     | 70.1       | -0.13      | 0.00   | 0.00 | 1.06255         | 0.583       | 28.786       | 2251.33        |
| 4700   | 334.283        | 299.143     | 70.2       | -0.16      | 0.00   | 0.00 | 1.06259         | 0.805       | 28.786       | 2244.97        |
| 4750   | 332.941        | 301.112     | 70.2       | -0.11      | 0.00   | 0.00 | 1.06266         | 1.055       | 28.785       | 2235.95        |
| 4800   | 324.528        | 296.592     | 70.1       | -0.14      | 0.00   | 0.00 | 1.06254         | 1.406       | 28.785       | 2179.45        |
| 4850   | 321.770        | 297.135     | 70.2       | -0.14      | 0.00   | 0.07 | 1.06266         | 1.604       | 28.784       | 2160.93        |
| 4900   | 322.031        | 300.442     | 70.2       | -0.14      | 0.00   | 0.00 | 1.06267         | 1.787       | 28.785       | 2162.68        |
| 4950   | 322.981        | 304.403     | 70.2       | -0.15      | 0.00   | 0.00 | 1.06268         | 1.986       | 28.785       | 2169.06        |
| 5000   | 324.048        | 308.494     | 70.1       | -0.12      | 0.00   | 0.07 | 1.06254         | 2.206       | 28.785       | 2176.23        |
| 5050   | 324.214        | 311.738     | 70.1       | -0.15      | 0.00   | 0.07 | 1.06260         | 2.488       | 28.784       | 2177.34        |
| 5100   | 323.040        | 313.684     | 70.1       | -0.15      | 0.00   | 0.07 | 1.06260         | 2.753       | 28.785       | 2169.46        |
| 5150   | 322.636        | 316.366     | 70.2       | -0.12      | 0.00   | 0.07 | 1.06263         | 3.004       | 28.785       | 2166.74        |
| 5200   | 321.817        | 318.624     | 70.2       | -0.12      | 0.00   | 0.01 | 1.06259         | 3.250       | 28.786       | 2161.25        |
| 5250   | 320.794        | 320.666     | 70.1       | -0.21      | 0.00   | 0.05 | 1.06259         | 3.510       | 28.784       | 2154.38        |
| 5300   | 319.339        | 322.251     | 70.1       | -0.17      | 0.01   | 0.08 | 1.06263         | 3.782       | 28.785       | 2144.61        |
| 5350   | 315.944        | 321.832     | 70.1       | -0.16      | 0.01   | 0.09 | 1.06259         | 4.072       | 28.784       | 2121.80        |
| 5400   | 307.963        | 316.635     | 70.2       | -0.18      | 0.00   | 0.00 | 1.06270         | 4.394       | 28.784       | 2068.20        |
| 5450   | 305.241        | 316.742     | 70.2       | -0.12      | 0.00   | 0.00 | 1.06273         | 4.595       | 28.784       | 2049.92        |
| 5500   | 304.421        | 318.789     | 70.1       | -0.11      | 0.00   | 0.00 | 1.06259         | 4.798       | 28.785       | 2044.42        |
| 5550   | 302.832        | 320.008     | 70.2       | -0.17      | 0.00   | 0.00 | 1.06262         | 5.054       | 28.786       | 2033.74        |
| 5600   | 300.042        | 319.916     | 70.2       | -0.15      | 0.01   | 0.09 | 1.06277         | 5.304       | 28.785       | 2015.01        |
| 5650   | 298.218        | 320.811     | 70.1       | -0.14      | 0.00   | 0.01 | 1.06263         | 5.549       | 28.784       | 2002.76        |
| 5700   | 297.828        | 323.227     | 70.1       | -0.16      | 0.00   | 0.07 | 1.06268         | 5.783       | 28.784       | 2000.14        |

RHAS-SP V1.7-04 VIEWER - Heartthrob Exhaust

Comparison: Correction-Method: SAE



|           |         |
|-----------|---------|
| SAP1      | 0.31    |
| Time      | 692.59  |
| Hubrpm    | 4578    |
| EngRPM    | 2224.9  |
| AxleTorq  | 2224.9  |
| AxleTorqM | 0.0     |
| AxleTorqS | 336.6   |
| Torque    | 293.4   |
| AxlePow   | 293.4   |
| Power     | 1.06254 |
| PCRatio   | -0.15   |
| MAP       | 70.1    |
| Temp      | 1.1393  |
| AirDens   | 28.79   |
| Baro      | 48.8    |
| RelHum    | 48.7    |
| Speed     | 2260.5  |
| T.Effort  | 0.7324  |
| Accel     | 21.7    |
| Distance  |         |

**Plot 1 (Thick)** X Axis  Eng rpm  Torque  
**Plot 2 (Thin)** Y Axis (Right)  Power  Ave. Data Cursor  Show ShowLock

Folder:  
  Run ID:  
  Date:

Vehicle Folder: 2019 ram 1500  
 Date: 10-Sep-2019  
 Time: 11:22:58  
 Run ID: hvs muffler run 2  
 Run No: 4

Correction Method: SAE

Run Comment:

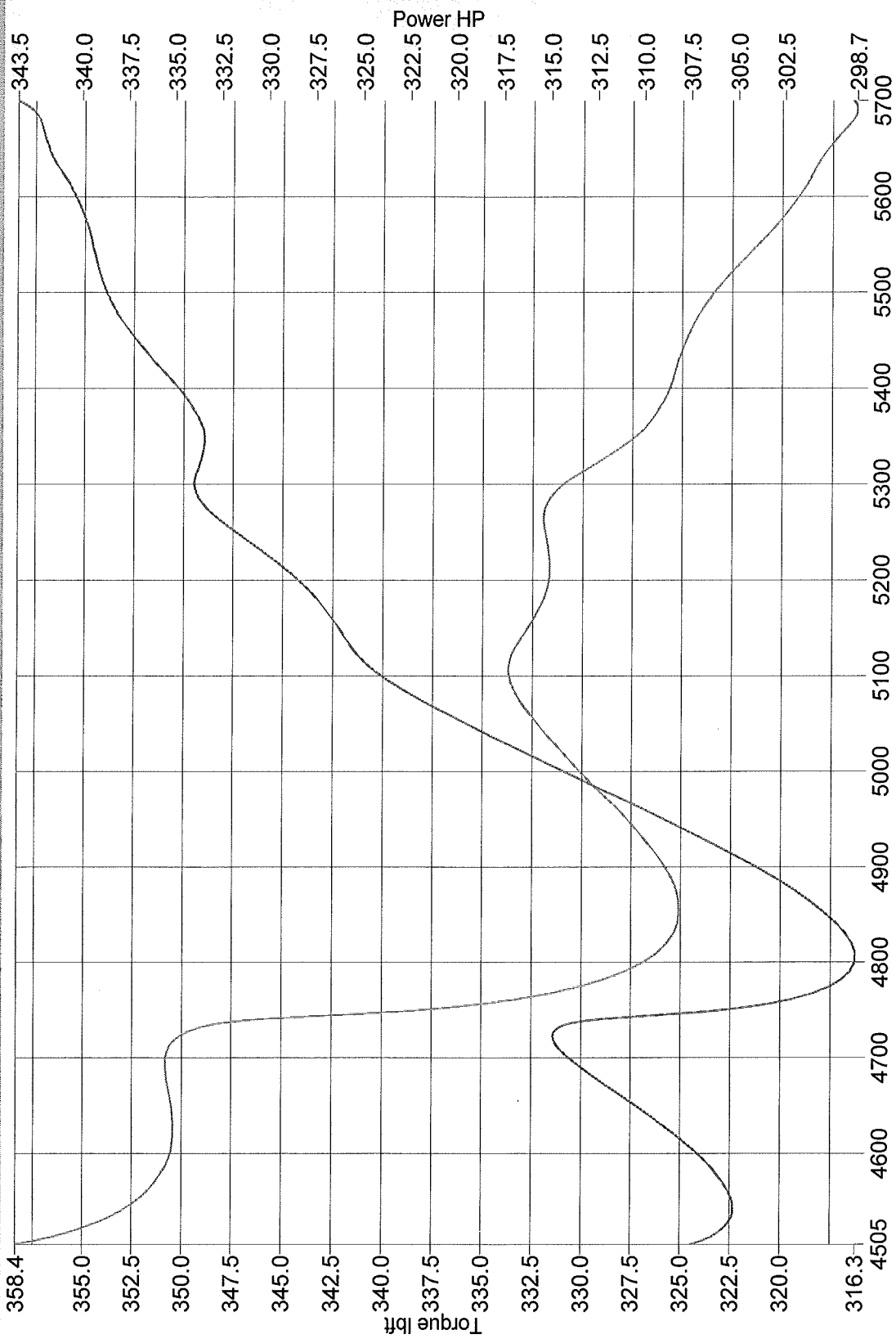
Vehicle Specification  
 Wheel Diameter (mm): 600.0  
 Weight (kg): 1400.00  
 Drive Ratio: 6.61000000  
 Trans.C. Factor: 1.000000  
 Gearbox: MANUAL  
 Gear: 4  
 Control Mode: CUSTOM



| EngRPM | Torque<br>lbft | Power<br>HP | Temp<br>°F | MAP<br>PSI | Lambda | AFR  | PCRatio<br>P/PC | Time<br>sec | Baro<br>InHg | T.Effort<br>lb |
|--------|----------------|-------------|------------|------------|--------|------|-----------------|-------------|--------------|----------------|
| 4505   | 358.374        | 307.384     | 75.1       | -0.25      | 0.00   | 0.03 | 1.04937         | 0.000       | 28.925       | 2406.75        |
| 4550   | 352.296        | 305.201     | 75.1       | -0.24      | 0.00   | 0.00 | 1.04941         | 0.311       | 28.926       | 2365.93        |
| 4600   | 350.571        | 307.043     | 75.1       | -0.28      | 0.00   | 0.07 | 1.04938         | 0.508       | 28.925       | 2354.35        |
| 4650   | 350.521        | 310.337     | 75.1       | -0.25      | 0.00   | 0.00 | 1.04939         | 0.699       | 28.925       | 2354.02        |
| 4700   | 350.823        | 313.953     | 75.1       | -0.27      | 0.00   | 0.00 | 1.04943         | 0.917       | 28.925       | 2356.05        |
| 4750   | 337.972        | 305.661     | 75.1       | -0.26      | 0.00   | 0.05 | 1.04945         | 1.416       | 28.924       | 2269.74        |
| 4800   | 326.876        | 298.738     | 75.1       | -0.26      | 0.00   | 0.00 | 1.04943         | 1.673       | 28.924       | 2195.22        |
| 4850   | 325.101        | 300.211     | 75.1       | -0.26      | 0.00   | 0.00 | 1.04940         | 1.824       | 28.924       | 2183.30        |
| 4900   | 325.782        | 303.941     | 75.0       | -0.26      | 0.00   | 0.00 | 1.04941         | 1.964       | 28.924       | 2187.87        |
| 4950   | 327.705        | 308.855     | 75.0       | -0.23      | 0.00   | 0.00 | 1.04942         | 2.119       | 28.923       | 2200.79        |
| 5000   | 330.091        | 314.247     | 75.1       | -0.26      | 0.00   | 0.06 | 1.04940         | 2.314       | 28.924       | 2216.81        |
| 5050   | 332.241        | 319.456     | 75.1       | -0.25      | 0.00   | 0.00 | 1.04945         | 2.551       | 28.923       | 2231.25        |
| 5100   | 333.661        | 323.998     | 75.1       | -0.28      | 0.00   | 0.00 | 1.04945         | 2.823       | 28.923       | 2240.79        |
| 5150   | 332.744        | 326.281     | 75.1       | -0.25      | 0.00   | 0.04 | 1.04949         | 3.145       | 28.923       | 2234.63        |
| 5200   | 331.694        | 328.403     | 75.1       | -0.26      | 0.00   | 0.00 | 1.04947         | 3.411       | 28.922       | 2227.58        |
| 5250   | 331.882        | 331.749     | 75.1       | -0.26      | 0.00   | 0.05 | 1.04949         | 3.644       | 28.922       | 2228.84        |
| 5300   | 330.976        | 333.994     | 75.0       | -0.22      | 0.00   | 0.00 | 1.04948         | 3.926       | 28.922       | 2222.76        |
| 5350   | 327.332        | 333.433     | 75.0       | -0.27      | 0.01   | 0.13 | 1.04945         | 4.222       | 28.923       | 2198.28        |
| 5400   | 325.630        | 334.800     | 75.1       | -0.27      | 0.00   | 0.00 | 1.04948         | 4.452       | 28.923       | 2186.86        |
| 5450   | 324.801        | 337.039     | 75.1       | -0.27      | 0.00   | 0.00 | 1.04946         | 4.681       | 28.923       | 2181.29        |
| 5500   | 323.408        | 338.672     | 75.1       | -0.26      | 0.01   | 0.10 | 1.04944         | 4.938       | 28.924       | 2171.93        |
| 5550   | 321.227        | 339.447     | 75.1       | -0.26      | 0.00   | 0.06 | 1.04950         | 5.199       | 28.922       | 2157.28        |
| 5600   | 319.191        | 340.358     | 75.1       | -0.22      | 0.00   | 0.00 | 1.04952         | 5.438       | 28.922       | 2143.61        |
| 5650   | 317.723        | 341.793     | 75.1       | -0.24      | 0.00   | 0.06 | 1.04947         | 5.685       | 28.922       | 2133.75        |
| 5700   | 316.475        | 343.464     | 75.0       | -0.25      | 0.00   | 0.00 | 1.04943         | 6.009       | 28.923       | 2125.37        |

RHAS-SP V1.7-04 VIEWER - Heartthrob Exhaust

Comparison: Correction-Method: SAE



|           |         |
|-----------|---------|
| SAP4      | 0.00    |
| Time      | 681.52  |
| Hubrpm    | 4505    |
| EngRPM    | 2368.9  |
| AxleTorq  | 2368.9  |
| AxleTorqM | 0.0     |
| AxleTorqS | 358.4   |
| Torque    | 307.4   |
| AxlePow   | 307.4   |
| Power     | 1.04937 |
| PCRratio  | -0.25   |
| MAP       | 75.1    |
| Temp      | 1.1486  |
| AirDens   | 28.93   |
| Baro      | 0.3     |
| RelHum    | 47.9    |
| Speed     | 2406.8  |
| T.Effort  | 0.7798  |
| Accel     | 0.0     |
| Distance  |         |

Plot 1 (Thick) X Axis (Left) Y Axis (Right) Plot 2 (Thin)

Source AP 4 Eng rpm Torque Power

Show ShowLock Ave. Data Cursor

Folder: 2019 ram 1500

Run ID: hvs muffler run 2

Date: 10-Sep-2019 11:22:58

Folder: [ ]

Run ID: [ ]

Date: [ ]