

Diablo Analytical BTU Report

Sample Information

| Sample Information | |
|------------------------|-------------------------------|
| Sample Name | Macey 3 |
| Station Number | 05-067-07837 |
| Taken By | Travis Tapp |
| Method Name | NGAEMS1 |
| Injection Date | 4/13/2016 8:17:04 AM |
| Report Date | 04/13/2016 08:32:54 AM |
| BTU Configuration File | default.cfg |
| Data Source | Cerity data system connection |
| Instrument | G2801AGC - CN10752004 |
| Data Saved To: | Macey 3-20160413-083254.btu |

Component Results

| Component Name | Ret. Time | Peak Area | Normalized Mole% | Heating Value (Btu / cu. ft.) | Molar Mass Ratio (G) | GPM (Gal. / 1000 cu. ft.) |
|------------------|-----------|-----------|------------------|-------------------------------|----------------------|---------------------------|
| Nitrogen | 0.289 | 1311 | 0.1455 | 0.0000 | 0.0014 | 0.0161 |
| Methane | 0.300 | 495707 | 80.0877 | 810.7572 | 0.4436 | 13.6207 |
| Carbon Dioxide | 0.409 | 20024 | 2.0372 | 0.0000 | 0.0310 | 0.3488 |
| Ethane | 0.478 | 98603 | 9.6322 | 170.8554 | 0.1000 | 2.5842 |
| Hydrogen Sulfide | 0.000 | 0 | 0.0000 | 0.0000 | 0.0000 | |
| Propane | 1.403 | 55694 | 4.4469 | 112.1473 | 0.0677 | 1.2290 |
| i-Butane | 0.369 | 102290 | 2.0710 | 67.5027 | 0.0416 | 0.6799 |
| n-Butane | 0.435 | 40524 | 0.8136 | 26.6035 | 0.0163 | 0.2573 |
| i-Pentane | 0.462 | 38568 | 0.7187 | 28.8210 | 0.0179 | 0.2637 |
| n-Pentane | 0.521 | 237 | 0.0043 | 0.1728 | 0.0001 | 0.0016 |
| Hexanes Plus | 0.606 | 2485 | 0.0429 | 2.0450 | 0.0013 | 0.0177 |
| Total: | | | 100.0000 | 1218.9048 | 0.7208 | 19.0189 |

Results Summary

| Result | Dry |
|---|-----------|
| Total Unnormalized Mole% | 105.3833 |
| Pressure Base (psia) | 14.730 |
| Gross Heating Value (Btu / Ideal cu. ft.) | 1218.9048 |
| Gross Heating Value (Btu / Real cu. ft.) | 1223.1085 |
| Real Relative Density | 0.72303 |
| Gas Compressibility (Z) Factor | 0.99656 |