EMPACT ANALYTICAL SYSTEMS INC.
365 S. MAIN ST.
BRIGHTON, CO
80601

303-637-0150

## EXTENDED NATURAL GAS ANALYSIS (*DHA)

### MAIN PAGE

| | | | |
|---|---|---|---|
| PROJECT NO. : | 201410002 | ANALYSIS NO. : | 08 |
| COMPANY NAME : | NIGHTHAWK PRODUCTION | ANALYSIS DATE: | OCTOBER 5, 2014 |
| ACCOUNT NO. : | | SAMPLE DATE : | SEPTEMBER 30, 2014 |
| PRODUCER : | | CYLINDER NO. : | 0920 |
| LEASE NO. : | | SAMPLED BY : | JOHN MOSER - EMPACT |
| NAME/DESCRIP : | SALES GAS 14:10<br>BLACK COMB 12-14 | | |
| ***FIELD DATA*** | | SAMPLE TEMP. : | 96 |
| SAMPLE PRES. : | 19 | AMBIENT TEMP.: | |
| VAPOR PRES. : | | GRAVITY : | |
| COMMENTS : | SPOT; NO PROBE; LENGTH OF H2S STAIN @ 1.75PPM (1-7PPM) 14:15 | | |

| COMPONENT | MOLE % | MASS % | GPM @ 14.650 | GPM @ 14.730 |
|---|---|---|---|---|
| ALCOHOLS | 0.0027 | 0.0066 | | |
| HELIUM | 0.52 | 0.07 | --- | --- |
| HYDROGEN | 0.06 | 0.00 | --- | --- |
| OXYGEN/ARGON | 0.38 | 0.41 | --- | --- |
| NITROGEN | 48.09 | 44.97 | --- | --- |
| CARBON DIOXIDE | 2.35 | 3.45 | --- | --- |
| METHANE | 26.75990 | 14.32910 | --- | --- |
| ETHANE | 5.4854 | 5.5054 | 1.4625 | 1.4705 |
| PROPANE | 6.9324 | 10.2032 | 1.9044 | 1.9148 |
| I-BUTANE | 1.3006 | 2.5232 | 0.4249 | 0.4272 |
| N-BUTANE | 4.3018 | 8.3455 | 1.3526 | 1.3599 |
| I-PENTANE | 0.9963 | 2.3972 | 0.3609 | 0.3628 |
| N-PENTANE | 1.3814 | 3.3267 | 0.4988 | 0.5016 |
| HEXANES PLUS | 1.4395 | 4.4631 | 0.5930 | 0.5956 |
| TOTALS | 100.00000 | 100.00000 | 6.5971 | 6.6324 |

| BTEX COMPONENTS | MOLE% | WT% |
|---|---|---|
| BENZENE | 0.0019 | 0.0049 |
| TOLUENE | 0.0019 | 0.0058 |
| ETHYLBENZENE | 0.0009 | 0.0032 |
| XYLENES | 0.0020 | 0.0071 |
| TOTAL BTEX | 0.0067 | 0.0210 |

| BTU @ | | 14.650 | 14.730 |
|---|---|---|---|
| LOW | NET DRY REAL : | 815.7 /scf | 820.2 /scf |
| | NET WET REAL : | 801.4 /scf | 805.9 /scf |
| HIGH | GROSS DRY REAL : | 891.1 /scf | 896.0 /scf |
| | GROSS WET REAL : | 875.5 /scf | 880.4 /scf |
| | NET DRY REAL : | 10356.4 /lb | 10412.9 /lb |
| | GROSS DRY REAL : | 11314.8 /lb | 11376.5 /lb |
| | RELATIVE DENSITY (AIR=1): | | 1.0327 |
| | COMPRESSIBILITY FACTOR : | | 0.99720 |

*(CALC: GPA STD 2145 & TP-17 @14.696 & 60 F)*

*(DETAILED HYDROCARBON ANALYSIS/NJ 1993) ; ASTM D6730*

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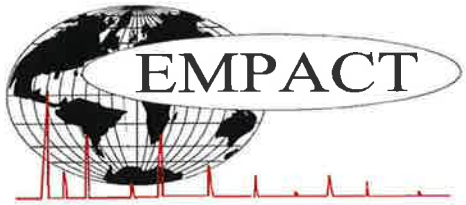
## EXTENDED NATURAL GAS ANALYSIS (*DHA)

## GLYCALC INFORMATION

| | | | |
|---|---|---|---|
| PROJECT NO. : | 201410002 | ANALYSIS NO. : | 08 |
| COMPANY NAME : | NIGHTHAWK PRODUCTION | ANALYSIS DATE: | OCTOBER 5, 2014 |
| ACCOUNT NO. : | | SAMPLE DATE : | SEPTEMBER 30, 2014 |
| PRODUCER : | | CYLINDER NO. : | 0920 |
| LEASE NO. : | | SAMPLED BY : | JOHN MOSER - EMPACT |
| NAME/DESCRIP : | SALES GAS 14:10<br>BLACK COMB 12-14 | | |
| ***FIELD DATA*** | | SAMPLE TEMP. : | 96 |
| SAMPLE PRES. : | 19 | AMBIENT TEMP.: | |
| VAPOR PRES. : | | GRAVITY : | |
| COMMENTS : | SPOT; NO PROBE; LENGTH OF H2S STAIN @ 1.75PPM (1-7PPM) 14:15 | | |

| Componet | Mole % | Wt % |
|---|---|---|
| Helium | 0.52 | 0.07 |
| Hydrogen | 0.06 | 0.00 |
| Carbon Dioxide | 2.35 | 3.45 |
| Carbon Monoxide | 0.00 | 0.00 |
| Nitrogen | 48.09 | 44.97 |
| Methane | 26.75990 | 14.32910 |
| Ethane | 5.4854 | 5.5054 |
| Propane | 6.9324 | 10.2032 |
| Isobutane | 1.3006 | 2.5232 |
| n-Butane | 4.3018 | 8.3455 |
| Isopentane | 0.9654 | 2.3249 |
| n-Pentane | 1.3814 | 3.3267 |
| Cyclopentane | 0.0309 | 0.0723 |
| n-Hexane | 0.3515 | 1.0111 |
| Cyclohexane | 0.0764 | 0.2146 |
| Other Hexanes | 0.4872 | 1.3951 |
| Heptanes | 0.2803 | 0.9324 |
| Methycyclohexane | 0.0741 | 0.2429 |
| 2,2,4 Trimethylpentane | 0.0008 | 0.0030 |
| Benzene | 0.0019 | 0.0049 |
| Toluene | 0.0019 | 0.0058 |
| Ethylbenzene | 0.0009 | 0.0032 |
| Xylenes | 0.0020 | 0.0071 |
| C8+ Heavies | 0.1625 | 0.6430 |
| ***Subtotal*** | 99.61730 | 99.58340 |
| Oxygen/Argon | 0.38 | 0.41 |
| Alcohols | 0.0027 | 0.0066 |
| **Total** | 100.00000 | 100.00000 |




## EXTENDED NATURAL GAS ANALYSIS (*DHA)

## DHA COMPONENT LIST

| | | | |
|---|---|---|---|
| PROJECT NO. : | 201410002 | ANALYSIS NO. : | 08 |
| COMPANY NAME : | NIGHTHAWK PRODUCTION | ANALYSIS DATE: | OCTOBER 5, 2014 |
| ACCOUNT NO. : | | SAMPLE DATE : | SEPTEMBER 30, 2014 |
| PRODUCER : | | CYLINDER NO. : | 0920 |
| LEASE NO. : | | SAMPLED BY : | JOHN MOSER - EMPACT |
| NAME/DESCRIP : | SALES GAS 14:10<br>BLACK COMB 12-14 | | |
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| VAPOR PRES. : | | GRAVITY : | |
| COMMENTS : | SPOT; NO PROBE; LENGTH OF H2S STAIN @ 1.75PPM (1-7PPM) 14:15 | | |

| COMPONENT | PIANO # | MOLE % | MASS % | GPM @ 14.650 | GPM @ 14.730 |
|---|---|---|---|---|---|
| Helium | --- | 0.52 | 0.07 | --- | --- |
| Hydrogen | --- | 0.06 | 0.00 | --- | --- |
| Oxygen/Argon | --- | 0.38 | 0.41 | --- | --- |
| Nitrogen | --- | 48.09 | 44.97 | --- | --- |
| Carbon Dioxide | --- | 2.35 | 3.45 | --- | --- |
| Methane | P1 | 26.75990 | 14.32910 | --- | --- |
| Ethane | P2 | 5.4854 | 5.5054 | 1.463 | 1.471 |
| Propane | P3 | 6.9324 | 10.2032 | 1.904 | 1.915 |
| i-Butane | I4 | 1.3006 | 2.5232 | 0.425 | 0.427 |
| n-Butane | P4 | 4.3015 | 8.3449 | 1.353 | 1.360 |
| 2,2-Dimethylpropane | I5 | 0.0080 | 0.0193 | 0.003 | 0.003 |
| i-Pentane | I5 | 0.9574 | 2.3056 | 0.349 | 0.351 |
| UnknownC4s | U4 | 0.0003 | 0.0006 | 0.000 | 0.000 |
| n-Pentane | P5 | 1.3788 | 3.3204 | 0.499 | 0.502 |
| t-Butanol | X4 | 0.0024 | 0.0059 | 0.001 | 0.001 |
| 2,2-Dimethylbutane | I6 | 0.0062 | 0.0178 | 0.003 | 0.003 |
| Cyclopentane | N5 | 0.0309 | 0.0723 | 0.009 | 0.009 |
| 2,3-Dimethylbutane | I6 | 0.0258 | 0.0742 | 0.011 | 0.011 |
| 2-Methylpentane | I6 | 0.2424 | 0.6972 | 0.100 | 0.101 |
| i-Butanol | X4 | 0.0003 | 0.0007 | 0.000 | 0.000 |
| 3-Methylpentane | I6 | 0.1208 | 0.3475 | 0.049 | 0.049 |
| UnknownC5s | U5 | 0.0026 | 0.0063 | 0.001 | 0.001 |
| n-Hexane | P6 | 0.3515 | 1.0111 | 0.144 | 0.145 |
| 2,2-Dimethylpentane | I7 | 0.0006 | 0.0020 | 0.000 | 0.000 |
| Methylcyclopentane | N6 | 0.0914 | 0.2567 | 0.032 | 0.032 |
| 2,4-Dimethylpentane | I7 | 0.0067 | 0.0224 | 0.003 | 0.003 |
| 2,2,3-Trimethylbutane | I7 | 0.0004 | 0.0013 | 0.000 | 0.000 |
| Benzene | A6 | 0.0019 | 0.0049 | 0.001 | 0.001 |
| 3,3-Dimethylpentane | I7 | 0.0001 | 0.0003 | 0.000 | 0.000 |
| Cyclohexane | N6 | 0.0764 | 0.2146 | 0.026 | 0.026 |
| 2-Methylhexane | I7 | 0.0360 | 0.1204 | 0.017 | 0.017 |
| 2,3-Dimethylpentane | I7 | 0.0102 | 0.0341 | 0.005 | 0.005 |
| 1,1-Dimethylcyclopentane | N7 | 0.0103 | 0.0337 | 0.004 | 0.004 |
| 3-Methylhexane | I7 | 0.0464 | 0.1552 | 0.021 | 0.021 |
| 1c,3-Dimethylcyclopentane | N7 | 0.0167 | 0.0547 | 0.008 | 0.008 |
| 1t,3-Dimethylcyclopentane | N7 | 0.0134 | 0.0439 | 0.006 | 0.006 |
| 3-Ethylpentane | I7 | 0.0017 | 0.0057 | 0.001 | 0.001 |
| 1t,2-Dimethylcyclopentane | N7 | 0.0268 | 0.0878 | 0.012 | 0.012 |
| 2,2,4-Trimethylpentane | I8 | 0.0008 | 0.0030 | 0.000 | 0.000 |
| UnknownC6s | U6 | 0.0006 | 0.0017 | 0.000 | 0.000 |
| n-Heptane | P7 | 0.1020 | 0.3412 | 0.047 | 0.047 |



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| | | | | | |
|---|---|---|---|---|---|
| 1c,2-Dimethylcyclopentane | N7 | 0.0024 | 0.0079 | 0.001 | 0.001 |
| Methylcyclohexane | N7 | 0.0741 | 0.2429 | 0.030 | 0.030 |
| 2,2-Dimethylhexane | I8 | 0.0082 | 0.0313 | 0.004 | 0.004 |
| Ethylcyclopentane | N7 | 0.0041 | 0.0134 | 0.002 | 0.002 |
| 2,5-Dimethylhexane | I8 | 0.0009 | 0.0034 | 0.000 | 0.000 |
| 2,2,3-Trimethylpentane | I8 | 0.0009 | 0.0034 | 0.000 | 0.000 |
| 2,4-Dimethylhexane | I8 | 0.0030 | 0.0114 | 0.002 | 0.002 |
| 1c,2t,4-Trimethylcyclopentane | N8 | 0.0054 | 0.0202 | 0.002 | 0.002 |
| 3,3-Dimethylhexane | I8 | 0.0007 | 0.0027 | 0.000 | 0.000 |
| 1t,2c,4-Trimethylcyclopentane | N8 | 0.0076 | 0.0285 | 0.003 | 0.003 |
| 2,3,4-Trimethylpentane | I8 | 0.0002 | 0.0008 | 0.000 | 0.000 |
| 2,3,3-Trimethylpentane | I8 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| Toluene | A7 | 0.0019 | 0.0058 | 0.001 | 0.001 |
| 2,3-Dimethylhexane | I8 | 0.0023 | 0.0088 | 0.001 | 0.001 |
| 2-Methyl-3-ethylpentane | I8 | 0.0010 | 0.0038 | 0.000 | 0.000 |
| 1,1,2-Trimethylcyclopentane | N8 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 2-Methylheptane | I8 | 0.0161 | 0.0614 | 0.008 | 0.008 |
| 4-Methylheptane | I8 | 0.0044 | 0.0168 | 0.002 | 0.002 |
| 3-Methyl-3-ethylpentane | I8 | 0.0010 | 0.0038 | 0.000 | 0.000 |
| 3,4-Dimethylhexane | I8 | 0.0007 | 0.0027 | 0.000 | 0.000 |
| 1c,2c,4-Trimethylcyclopentane | N8 | 0.0004 | 0.0015 | 0.000 | 0.000 |
| 1c,3-Dimethylcyclohexane | N8 | 0.0002 | 0.0007 | 0.000 | 0.000 |
| 3-Methylheptane | I8 | 0.0052 | 0.0198 | 0.003 | 0.003 |
| 1c,2t,3-Trimethylcyclopentane | N8 | 0.0107 | 0.0401 | 0.005 | 0.005 |
| 3-Ethylhexane | I8 | 0.0042 | 0.0160 | 0.002 | 0.002 |
| 1t,4-Dimethylcyclohexane | N8 | 0.0036 | 0.0135 | 0.002 | 0.002 |
| 1,1-Dimethylcyclohexane | N8 | 0.0010 | 0.0037 | 0.000 | 0.000 |
| 3t-Ethylmethylcyclopentane | N8 | 0.0011 | 0.0041 | 0.001 | 0.001 |
| 2t-Ethylmethylcyclopentane | N8 | 0.0008 | 0.0030 | 0.000 | 0.000 |
| 1,1-Methylethylcyclopentane | N8 | 0.0023 | 0.0086 | 0.001 | 0.001 |
| 2,2,4-Trimethylhexane | I9 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 1t,2-Dimethylcyclohexane | N8 | 0.0038 | 0.0142 | 0.002 | 0.002 |
| UnknownC7s | U7 | 0.0025 | 0.0084 | 0.001 | 0.001 |
| n-Octane | P8 | 0.0162 | 0.0618 | 0.008 | 0.008 |
| 1c,4-Dimethylcyclohexane | N8 | 0.0097 | 0.0363 | 0.005 | 0.005 |
| i-Propylcyclopentane | I8 | 0.0003 | 0.0011 | 0.000 | 0.000 |
| 2,4,4-Trimethylhexane | I9 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 2,3,5-Trimethylhexane | I9 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 2,2,3,4-Tetramethylpentane | I9 | 0.0004 | 0.0017 | 0.000 | 0.000 |
| 2,3,4-Trimethylhexane | I9 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 1c,2-Dimethylcyclohexane | N8 | 0.0009 | 0.0034 | 0.000 | 0.000 |
| 2,2-Dimethylheptane | I9 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 1,1,4-Trimethylcyclohexane | N9 | 0.0045 | 0.0190 | 0.002 | 0.002 |
| 2,2,3-Trimethylhexane | I9 | 0.0022 | 0.0094 | 0.001 | 0.001 |
| 2,4-Dimethylheptane | I9 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 4,4-Dimethylheptane | I9 | 0.0007 | 0.0030 | 0.000 | 0.000 |
| Ethylcyclohexane | N8 | 0.0018 | 0.0067 | 0.001 | 0.001 |
| n-Propylcyclopentane | N8 | 0.0011 | 0.0041 | 0.000 | 0.000 |
| 1c,3c,5-Trimethylcyclohexane | N9 | 0.0003 | 0.0013 | 0.000 | 0.000 |
| 2,5-Dimethylheptane | I9 | 0.0004 | 0.0017 | 0.000 | 0.000 |
| 3,3-Dimethylheptane | I9 | 0.0004 | 0.0017 | 0.000 | 0.000 |
| 3,5-Dimethylheptane | I9 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 2,6-Dimethylheptane | I9 | 0.0003 | 0.0013 | 0.000 | 0.000 |
| 1,1,3-Trimethylcyclohexane | N9 | 0.0005 | 0.0021 | 0.000 | 0.000 |
| Ethylbenzene | I8 | 0.0009 | 0.0032 | 0.000 | 0.000 |
| 1c,2t,4t-Trimethylcyclohexane | N9 | 0.0007 | 0.0029 | 0.000 | 0.000 |
| 2,3-Dimethylheptane | I9 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 1,3-Dimethylbenzene (m-Xylene) | A8 | 0.0009 | 0.0032 | 0.000 | 0.000 |
| 1,4-Dimethylbenzene (p-Xylene) | A8 | 0.0006 | 0.0021 | 0.000 | 0.000 |
| 3,4-Dimethylheptane | I9 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 3,4-Dimethylheptane (2) | I9 | 0.0004 | 0.0017 | 0.000 | 0.000 |
| 4-Ethylheptane | I9 | 0.0003 | 0.0013 | 0.000 | 0.000 |
| 4-Methyloctane | I9 | 0.0013 | 0.0056 | 0.001 | 0.001 |
| 2-Methyloctane | I9 | 0.0015 | 0.0064 | 0.001 | 0.001 |



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| | | | | | |
|---|---|---|---|---|---|
| 1c,2t,3-Trimethylcyclohexane | N9 | 0.0002 | 0.0008 | 0.000 | 0.000 |
| 3-Ethylheptane | I9 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 3-Methyloctane | I9 | 0.0022 | 0.0094 | 0.001 | 0.001 |
| 1c,2t,4c-Trimethylcyclohexane | I9 | 0.0002 | 0.0008 | 0.000 | 0.000 |
| 1,1,2-Trimethylcyclohexane | N9 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 3,3-Diethylpentane | I9 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,2-Dimethylbenzene (o-Xylene) | A8 | 0.0005 | 0.0018 | 0.000 | 0.000 |
| i-Butylcyclopentane | N9 | 0.0008 | 0.0034 | 0.000 | 0.000 |
| UnknownC8s | U8 | 0.0004 | 0.0015 | 0.000 | 0.000 |
| n-Nonane | P9 | 0.0045 | 0.0193 | 0.003 | 0.003 |
| 1,1-Methylethylcyclohexane | N9 | 0.0020 | 0.0084 | 0.001 | 0.001 |
| i-Propylbenzene | A9 | 0.0003 | 0.0012 | 0.000 | 0.000 |
| i-Propylcyclohexane | N9 | 0.0002 | 0.0008 | 0.000 | 0.000 |
| 2,2-Dimethyloctane | I10 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| 2,4-Dimethyloctane | I10 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| 2,6-Dimethyloctane | I10 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| n-Butylcyclopentane | N9 | 0.0007 | 0.0029 | 0.000 | 0.000 |
| 3,3-Dimethyloctane | I10 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| n-Propylbenzene | A9 | 0.0007 | 0.0028 | 0.000 | 0.000 |
| 3,6-Dimethyloctane | I10 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 3-Methyl-5-ethylheptane | I10 | 0.0003 | 0.0014 | 0.000 | 0.000 |
| 1,3-Methylethylbenzene | A9 | 0.0002 | 0.0008 | 0.000 | 0.000 |
| 1,4-Methylethylbenzene | A9 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,3,5-Trimethylbenzene | A9 | 0.0003 | 0.0012 | 0.000 | 0.000 |
| 2,3-Dimethyloctane | I10 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 5-Methylnonane | I10 | 0.0006 | 0.0028 | 0.000 | 0.000 |
| 1,2-Methylethylbenzene | A9 | 0.0003 | 0.0012 | 0.000 | 0.000 |
| 2-Methylnonane | I10 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| 3-Ethyloctane | I10 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| 3-Methylnonane | I10 | 0.0003 | 0.0014 | 0.000 | 0.000 |
| 1,2,4-Trimethylbenzene | A9 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| t-Butylbenzene | A10 | 0.0003 | 0.0013 | 0.000 | 0.000 |
| i-Butylcyclohexane | N10 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 1t-Methyl-2-n-propylcyclohexane | I10 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| i-Butylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| UnknownC9s | U9 | 0.0044 | 0.0188 | 0.002 | 0.002 |
| n-Decane | P10 | 0.0017 | 0.0081 | 0.001 | 0.001 |
| 1,2,3-Trimethylbenzene | A9 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,3-Methyl-i-propylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,4-Methyl-i-propylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| Sec-Butylcyclohexane | A10 | 0.0005 | 0.0023 | 0.000 | 0.000 |
| 1,2-Methyl-i-propylbenzene | A10 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 1,3-Diethylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,3-Methyl-n-propylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,4-Diethylbenzene | A10 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 1,4-Methyl-n-propylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| n-Butylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,3-Dimethyl-5-ethylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,2-Diethylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| t-Decahydronaphthalene | A9 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| 1,2-Methyl-n-propylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,4-Dimethyl-2-ethylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,2-Dimethyl-4-ethylbenzene | A10 | 0.0002 | 0.0009 | 0.000 | 0.000 |
| 1,2-Dimethyl-3-ethylbenzene | A10 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,4-Methyl-t-butylbenzene | A11 | 0.0002 | 0.0010 | 0.000 | 0.000 |
| UnknownC10s | U10 | 0.0027 | 0.0128 | 0.002 | 0.002 |
| n-Undecane | P11 | 0.0007 | 0.0036 | 0.000 | 0.000 |
| 1,2,3,5-Tetramethylbenzene | A11 | 0.0001 | 0.0004 | 0.000 | 0.000 |
| 1,2-Methyl-t-butylbenzene | A11 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| 1,2-Ethyl-n-propylbenzene | A11 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| sec-Pentylbenzene | A11 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| 1,4-Di-i-propylbenzene | A11 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| UnknownC11s | U11 | 0.0009 | 0.0047 | 0.001 | 0.001 |
| n-Dodecane | P12 | 0.0003 | 0.0017 | 0.000 | 0.000 |

| | | | | | |
|---|---|---|---|---|---|
| 1,2,4-Triethylbenzene | A12 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| 1,2,3,4,5-Pentamethylbenzene | A13 | 0.0001 | 0.0005 | 0.000 | 0.000 |
| UnknownC12s | U12 | 0.0003 | 0.0016 | 0.000 | 0.000 |
| n-Tridecane | P13 | 0.0001 | 0.0006 | 0.000 | 0.000 |
| UnknownC13s | U13 | 0.0001 | 0.0006 | 0.000 | 0.000 |
| n-Tetradecane | P14 | 0.0001 | 0.0007 | 0.000 | 0.000 |
| TOTAL | | 100.00000 | 100.00000 | 6.5991 | 6.6344 |

| BTEX COMPONENTS | MOLE% | WT% |
|---|---|---|
| BENZENE | 0.0019 | 0.0049 |
| TOLUENE | 0.0019 | 0.0058 |
| ETHYLBENZENE | 0.0009 | 0.0032 |
| XYLENES | 0.0020 | 0.0071 |
| TOTAL BTEX | 0.0067 | 0.0210 |

| | BTU @ | 14.650 | 14.730 |
|---|---|---|---|
| LOW | NET DRY REAL : | 815.7 /scf | 820.2 /scf |
| | NET WET REAL : | 801.4 /scf | 805.9 /scf |
| HIGH | GROSS DRY REAL : | 891.1 /scf | 896.0 /scf |
| | GROSS WET REAL : | 875.5 /scf | 880.4 /scf |
| | NET DRY REAL : | 10356.4 /lb | 10412.9 /lb |
| | GROSS DRY REAL : | 11314.8 /lb | 11376.5 /lb |
| | RELATIVE DENSITY (AIR=1): | | 1.0327 |
| | COMPRESSIBILITY FACTOR : | | 0.99720 |

*(CALC: GPA STD 2145 & TP-17 @14.696 & 60 F)*

**(DETAILED HYDROCARBON ANALYSIS/NJ 1993) ; ASTM D6730*





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