



EXTENDED NATURAL GAS ANALYSIS (*DHA)

MAIN PAGE

PRIMARY DB KEY: **05-045-13410** NAME/DESCRIP : **N.PARACHUTE H15 WF11D-14 596**
 LEASE #: **110167193** **BRAIDEN HEAD**
 FIELD/AREA: **WILDCAT - #99999**

PROJECT NO. : **202405044** ANALYSIS NO. : **04**
 COMPANY NAME : **CAERUS OIL & GAS LLC** ANALYSIS DATE: **MAY 10, 2024 14:16**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **MAY 2, 2024 15:00**
 CUSTOMER REF: **TO:**
 PRODUCER : **CAERUS PICEANCE LLC** EFFECTIVE DATE:

*****FIELD DATA*****

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : 75 psig PROBE : **NO**
 FLOW PRES. : psig CYLINDER NO. : **ECA-765**
 LAB PRES: psig SAMPLED BY : **MIKE KELLEY**
 SAMPLE TEMP. : 61 °f SAMPLING COMPANY: **CAERUS OIL & GAS LLC**
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: **-** ppm mol
 H2O BY STAIN TUBE: **-** #/mmcf CO2 BY STAIN TUBE: **-** Mol %
 FIELD COMMENTS:
 LAB COMMENTS: **Trace Olefins present. Low sample volume.**

COMPONENT	MOLE %	MASS %	GPM @	
			14.65	14.73
ALCOHOLS	1.9490	3.4546	0.6453	0.6489
HELIUM	0.10	0.01	---	---
HYDROGEN	0.00	0.00	---	---
OXYGEN/ARGON	20.05	20.75	---	---
NITROGEN	75.99	68.84	---	---
CARBON DIOXIDE	0.29	0.41	---	---
METHANE	0.0894	0.0464	---	---
ETHANE	0.0130	0.0126	0.0030	0.0030
PROPANE	0.0104	0.0148	0.0030	0.0030
I-BUTANE	0.0036	0.0068	0.0010	0.0010
N-BUTANE	0.0082	0.0154	0.0030	0.0030
I-PENTANE	0.0090	0.0209	0.0040	0.0040
N-PENTANE	0.0089	0.0208	0.0030	0.0030
HEXANES PLUS	1.4824	6.3983	0.8197	0.8224
TOTALS	100.00000	100.00000	1.4820	1.4883

BTX COMPONENTS	MOLE%	WT%	CALCULATED VALUES**	
			BTU @	
BENZENE	0.0251	0.0634	14.65	14.73
TOLUENE	0.1094	0.3260	LHV NET DRY REAL :	166.6 /scf
ETHYLBENZENE	0.0113	0.0388	NET WET REAL :	163.7 /scf
XYLENES	0.0887	0.3045	HHV GROSS DRY REAL :	179.2 /scf
TOTAL BTX	0.2345	0.7327	GROSS WET REAL :	176.1 /scf
			NET HEATING VALUE (60 °F ideal reaction):	2020.1 Btu/lbm
			GROSS HEATING VALUE (60°F ideal reaction):	2178.9 Btu/lbm
			RELATIVE DENSITY (AIR=1):	1.0666
			DENSITY	0.08149 lbm/scf
			COMPRESSIBILITY FACTOR :	0.9994
			REGULAR WOBBE INDEX	174.0

*(DETAILED HYDROCARBON ANALYSIS/NJ 1993)

Mod ASTM D6730, GPA 2261 & GPA 2286.

** (CALC: GPA 2172, GPA 2145 & TP-17 @14.696 & 60 F)

The data presented herein has been acquired by means of current analytical techniques and represents the judicious conclusion EMPACT Analytical Systems, Inc. Results of the analysis can be affected by the sampling conditions, therefore, are only warranted through proper lab protocol. EMPACT assumes no responsibility for interpretation or any consequences from application of the reported information and is the sole liability of the user. The reproduction in any media of this reported information may not be made, in portion or as a whole, without the written permission of EMPACT Analytical Systems, Inc.



**EXTENDED NATURAL GAS ANALYSIS (*DHA)
GLYCALC INFORMATION**

PROJECT NO. :	202405044	ANALYSIS NO. :	04
COMPANY NAME :	CAERUS OIL & GAS LLC	ANALYSIS DATE:	MAY 10, 2024 14:16
ACCOUNT NO. :		SAMPLE DATE :	MAY 2, 2024 15:00
PRODUCER :	CAERUS PICEANCE LLC	CYLINDER NO. :	ECA-765
LEASE NO. :	110167193	SAMPLED BY :	MIKE KELLEY
NAME/DESCRIP :	N.PARACHUTE H15 WF11D-14 596 BRAIDEN HEAD		

FIELD DATA

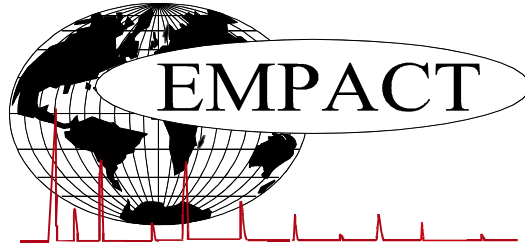
SAMPLE PRES. :	75	SAMPLE TEMP. :	61
H2S BY STAIN TUBE:	—	AMBIENT TEMP.:	
COMMENTS :	<i>SPOT ppm mol NO PROBE Trace Olefins present. Low sample volume.</i>		

<u>Componet</u>	<u>Mole %</u>	<u>Wt %</u>
Helium	0.10	0.01
Hydrogen	0.00	0.00
Carbon Dioxide	0.29	0.41
Nitrogen	75.99	68.84
Methane	0.0894	0.0464
Ethane	0.0130	0.0126
Propane	0.0104	0.0148
Isobutane	0.0036	0.0068
n-Butane	0.0082	0.0154
Isopentane	0.0072	0.0168
n-Pentane	0.0089	0.0208
Cyclopentane	0.0018	0.0041
n-Hexane	0.0169	0.0471
Cyclohexane	0.0206	0.0561
Other Hexanes	0.0337	0.0931
Heptanes	0.0894	0.2884
Methylcyclohexane	0.0768	0.2439
2,2,4 Trimethylpentane	0.0000	0.0000
Benzene	0.0251	0.0634
Toluene	0.1094	0.3260
Ethylbenzene	0.0113	0.0388
Xylenes	0.0887	0.3045
C8+ Heavies	1.0105	4.9370
<u>Subtotal</u>	<u>78.00100</u>	<u>75.79540</u>
Oxygen/Argon	20.05	20.75
Alcohols	1.9490	3.4546
<u>Total</u>	<u>100.00000</u>	<u>100.00000</u>

	<u>Total</u>	<u>C6+</u>	<u>C8+</u>	<u>C10+</u>
Calculated Values BTU @ <u>14.65</u>	Sample	Fraction	Fraction	Fraction
LHV Net Dry Real:	166.6	6673.1	7381.9	8423.1 Btu/scf
Net Wet Real:	163.7	6556.4	7252.9	8275.9 Btu/scf
HHV Gross Dry Real:	179.2	7178.8	7956.6	9103.6 Btu/scf
Gross Wet Real:	176.1	7053.3	7817.5	8944.5 Btu/scf
Other Calculated Values				
Regualr Wobbe Index*	174.0	3349.9	3540.5	3806.9 Btu/scf
Net Heating Value (60 °F ideal reaction):	2020.1	18661.9	18656.3	18448.4 Btu/lbm
Gross Heating Value (60°F ideal reaction):	2178.9	20074.5	20104.9	19935.8 Btu/lbm
Molar Mass (MW):	30.92321	133.484	147.05	166.627 g/mol
Relative Density (AIR=1):	1.0666	4.6097	5.0772	5.7533 SG
Density:	0.08149	0.35175	0.38750	0.43909 lbm/scf
Compressibility Factor:	0.9994	0.9988	0.9995	0.9999 Z
Liquid Volume real gas @: <u>14.65</u>	11.6355	0.8184	0.6789	0.4715 gal/1000 scf

* The Wobbe pressure base in the number considered is based upon the given Pb of the HHV above.
 #DIV/0 or 0 (zero) will appear in the Calculated Value Section when there is no C6+, C8+ or C10+ in the sample to calculate these factors.
 BDL - Below Detection Limit. The H2S LOS has a detection limit of 0.25 ppm. A _ (an underscore) indicates there was no tube pulled for H2S.

The data presented herein has been acquired by means of current analytical techniques and represents the judicious conclusion EMPACT Analytical Systems, Inc. Results of the analysis can be affected by the sampling conditions, therefore, are only warranted through proper lab protocol. EMPACT assumes no responsibility for interpretation or any consequences from application of the reported information and is the sole liability of the user. The reproduction in any media of this reported information may not be made, in portion or as a whole, without the written permission of EMPACT Analytical Systems, Inc.



EXTENDED NATURAL GAS ANALYSIS (*DHA)

DHA COMPONENT LIST

PRIMARY DB KEY: **05-045-13410** NAME/DESCRIP : **N.PARACHUTE H15 WF11D-14 596**
 LEASE #: **110167193** **BRAIDEN HEAD**
 FIELD/AREA: **WILDCAT - #99999**

PROJECT NO. : **202405044** ANALYSIS NO. : **04**
 COMPANY NAME : **CAERUS OIL & GAS LLC** ANALYSIS DATE: **MAY 10, 2024 14:16**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **MAY 2, 2024 15:00**
 CUSTOMER REF: TO:
 PRODUCER : **CAERUS PICEANCE LLC** EFFECTIVE DATE:

*****FIELD DATA*****

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : **75** psig PROBE : **NO**
 FLOW PRES. : psig CYLINDER NO. : **ECA-765**
 LAB PRES: psig SAMPLED BY : **MIKE KELLEY**
 SAMPLE TEMP. : **61** °f SAMPLING COMPANY: **CAERUS OIL & GAS LLC**
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: **-** ppm mol
 H2O BY STAIN TUBE: **-** #/mmcf CO2 BY STAIN TUBE: **-** Mol %

FIELD COMMENTS:
 LAB COMMENTS: **Trace Olefins present. Low sample volume.**

COMPONENT	PIANO #	MOLE %	MASS %	GPM @ 14.65	GPM @ 14.73
Helium	---	0.10	0.01	---	---
Hydrogen	---	0.00	0.00	---	---
Oxygen/Argon	---	20.05	20.75	---	---
Nitrogen	---	75.9861	68.8394	---	---
Carbon Dioxide	---	0.29	0.41	---	---
Methane	P1	0.0894	0.0464	---	---
Ethane	P2	0.0130	0.0126	0.003	0.003
Propane	P3	0.0104	0.0148	0.003	0.003
i-Butane	I4	0.0036	0.0068	0.001	0.001
Methanol	X1	0.2449	0.2538	0.031	0.031
n-Butane	P4	0.0065	0.0122	0.002	0.002
i-Pentane	I5	0.0072	0.0168	0.003	0.003
Acetone	X3	1.7011	3.1950	0.613	0.617
i-Propanol	X3	0.0030	0.0058	0.001	0.001
UnknownC4s	U4	0.0017	0.0032	0.001	0.001
n-Pentane	P5	0.0089	0.0208	0.003	0.003
2,2-Dimethylbutane	I6	0.0005	0.0014	0.000	0.000
Cyclopentane	N5	0.0018	0.0041	0.001	0.001
2,3-Dimethylbutane	I6	0.0031	0.0086	0.001	0.001
2-Methylpentane	I6	0.0104	0.0290	0.004	0.004
3-Methylpentane	I6	0.0056	0.0156	0.002	0.002
n-Hexane	P6	0.0169	0.0471	0.007	0.007
2,2-Dimethylpentane	I7	0.0010	0.0032	0.000	0.000
Methylcyclopentane	N6	0.0116	0.0316	0.004	0.004
2,4-Dimethylpentane	I7	0.0011	0.0036	0.001	0.001
2,2,3-Trimethylbutane	I7	0.0005	0.0016	0.000	0.000
Benzene	A6	0.0251	0.0634	0.007	0.007
3,3-Dimethylpentane	I7	0.0010	0.0032	0.000	0.000
Cyclohexane	N6	0.0206	0.0561	0.007	0.007

2-Methylhexane	I7	0.0111	0.0360	0.005	0.005
2,3-Dimethylpentane	I7	0.0028	0.0091	0.001	0.001
1,1-Dimethylcyclopentane	N7	0.0026	0.0082	0.001	0.001
3-Methylhexane	I7	0.0111	0.0360	0.005	0.005
1c,3-Dimethylcyclopentane	N7	0.0047	0.0149	0.002	0.002
1t,3-Dimethylcyclopentane	N7	0.0041	0.0130	0.002	0.002
3-Ethylpentane	I7	0.0008	0.0026	0.000	0.000
1t,2-Dimethylcyclopentane	N7	0.0058	0.0184	0.003	0.003
UnknownC6s	U6	0.0025	0.0069	0.001	0.001
n-Heptane	P7	0.0354	0.1147	0.016	0.016
1c,2-Dimethylcyclopentane	N7	0.0020	0.0063	0.001	0.001
Methylcyclohexane	N7	0.0768	0.2439	0.031	0.031
2,2-Dimethylhexane	I8	0.0028	0.0103	0.001	0.001
1,1,3-Trimethylcyclopentane	N7	0.0008	0.0029	0.000	0.000
Ethylcyclopentane	N7	0.0035	0.0111	0.001	0.001
2,5-Dimethylhexane	I8	0.0030	0.0111	0.002	0.002
2,2,3-Trimethylpentane	I8	0.0027	0.0100	0.001	0.001
2,4-Dimethylhexane	I8	0.0004	0.0015	0.000	0.000
1c,2t,4-Trimethylcyclopentane	N8	0.0019	0.0069	0.001	0.001
3,3-Dimethylhexane	I8	0.0011	0.0041	0.001	0.001
Toluene	A7	0.1094	0.3260	0.037	0.037
2,3-Dimethylhexane	I8	0.0025	0.0092	0.001	0.001
2-Methyl-3-ethylpentane	I8	0.0004	0.0015	0.000	0.000
2-Methylheptane	I8	0.0148	0.0547	0.008	0.008
4-Methylheptane	I8	0.0046	0.0170	0.002	0.002
3-Methylheptane	I8	0.0103	0.0381	0.005	0.005
1c,2t,3-Trimethylcyclopentane	N8	0.0194	0.0704	0.010	0.010
3-Ethylhexane	I8	0.0015	0.0055	0.001	0.001
1t,4-Dimethylcyclohexane	N8	0.0080	0.0290	0.004	0.004
1,1-Dimethylcyclohexane	N8	0.0018	0.0065	0.001	0.001
2,2,5-Trimethylhexane	I9	0.0003	0.0012	0.000	0.000
3c-Ethylmethylcyclopentane	N8	0.0008	0.0029	0.000	0.000
3t-Ethylmethylcyclopentane	N8	0.0005	0.0018	0.000	0.000
2t-Ethylmethylcyclopentane	N8	0.0009	0.0033	0.000	0.000
2,2,4-Trimethylhexane	I9	0.0005	0.0021	0.000	0.000
1t,2-Dimethylcyclohexane	N8	0.0067	0.0243	0.003	0.003
1t,3-Dimethylcyclohexane	N8	0.0005	0.0018	0.000	0.000
UnknownC7s	U7	0.0011	0.0036	0.001	0.001
n-Octane	P8	0.0615	0.2272	0.031	0.031
1c,4-Dimethylcyclohexane	N8	0.0070	0.0254	0.004	0.004
i-Propylcyclopentane	I8	0.0011	0.0040	0.000	0.000
2,3,5-Trimethylhexane	I9	0.0008	0.0033	0.000	0.000
2,2,3,4-Tetramethylpentane	I9	0.0007	0.0029	0.000	0.000
2,3,4-Trimethylhexane	I9	0.0010	0.0041	0.001	0.001
1c,2-Dimethylcyclohexane	N8	0.0009	0.0033	0.000	0.000
2,2-Dimethylheptane	I9	0.0022	0.0091	0.001	0.001
1,1,4-Trimethylcyclohexane	N9	0.0138	0.0563	0.007	0.007
2,2,3-Trimethylhexane	I9	0.0032	0.0133	0.002	0.002
2,4-Dimethylheptane	I9	0.0006	0.0025	0.000	0.000
4,4-Dimethylheptane	I9	0.0013	0.0054	0.001	0.001
Ethylcyclohexane	N8	0.0107	0.0388	0.005	0.005
n-Propylcyclopentane	N8	0.0052	0.0189	0.002	0.002
1c,3c,5-Trimethylcyclohexane	N9	0.0016	0.0065	0.001	0.001
2,5-Dimethylheptane	I9	0.0066	0.0274	0.004	0.004
3,3-Dimethylheptane	I9	0.0016	0.0066	0.001	0.001
3,5-Dimethylheptane	I9	0.0009	0.0037	0.001	0.001
2,6-Dimethylheptane	I9	0.0011	0.0046	0.001	0.001
1,1,3-Trimethylcyclohexane	N9	0.0006	0.0025	0.000	0.000
Ethylbenzene	I8	0.0113	0.0388	0.004	0.004
1c,2t,4t-Trimethylcyclohexane	N9	0.0005	0.0020	0.000	0.000
2,3-Dimethylheptane	I9	0.0006	0.0025	0.000	0.000

1,3-Dimethylbenzene (m-Xylene)	A8	0.0570	0.1957	0.022	0.022
1,4-Dimethylbenzene (p-Xylene)	A8	0.0188	0.0645	0.007	0.007
3,4-Dimethylheptane	I9	0.0003	0.0012	0.000	0.000
3,4-Dimethylheptane (2)	I9	0.0009	0.0037	0.000	0.000
4-Ethylheptane	I9	0.0008	0.0033	0.000	0.000
4-Methyloctane	I9	0.0048	0.0199	0.003	0.003
2-Methyloctane	I9	0.0076	0.0315	0.004	0.004
1c,2t,3-Trimethylcyclohexane	N9	0.0006	0.0025	0.000	0.000
3-Ethylheptane	I9	0.0009	0.0037	0.001	0.001
3-Methyloctane	I9	0.0012	0.0050	0.001	0.001
1c,2t,4c-Trimethylcyclohexane	I9	0.0084	0.0343	0.005	0.005
1,1,2-Trimethylcyclohexane	N9	0.0002	0.0008	0.000	0.000
3,3-Diethylpentane	I9	0.0008	0.0033	0.000	0.000
1,2-Dimethylbenzene (o-Xylene)	A8	0.0129	0.0443	0.005	0.005
i-Butylcyclopentane	N9	0.0059	0.0241	0.003	0.003
n-Nonane	P9	0.0360	0.1493	0.020	0.020
1,1-Methylethylcyclohexane	N9	0.0034	0.0139	0.002	0.002
i-Propylbenzene	A9	0.0018	0.0070	0.001	0.001
i-Propylcyclohexane	N9	0.0015	0.0061	0.001	0.001
2,2-Dimethyloctane	I10	0.0011	0.0051	0.001	0.001
2,4-Dimethyloctane	I10	0.0013	0.0060	0.001	0.001
2,6-Dimethyloctane	I10	0.0008	0.0037	0.000	0.000
2,5-Dimethyloctane	I10	0.0009	0.0041	0.001	0.001
n-Butylcyclopentane	N9	0.0050	0.0204	0.003	0.003
3,3-Dimethyloctane	I10	0.0023	0.0106	0.001	0.001
n-Propylbenzene	A9	0.0065	0.0253	0.003	0.003
3,6-Dimethyloctane	I10	0.0043	0.0198	0.003	0.003
3-Methyl-5-ethylheptane	I10	0.0027	0.0124	0.002	0.002
1,3-Methylethylbenzene	A9	0.0092	0.0358	0.005	0.005
1,4-Methylethylbenzene	A9	0.0008	0.0031	0.000	0.000
1,3,5-Trimethylbenzene	A9	0.0112	0.0435	0.005	0.005
2,3-Dimethyloctane	I10	0.0017	0.0078	0.001	0.001
5-Methylnonane	I10	0.0046	0.0211	0.003	0.003
1,2-Methylethylbenzene	A9	0.0014	0.0054	0.001	0.001
2-Methylnonane	I10	0.0073	0.0336	0.004	0.004
3-Ethylheptane	I10	0.0018	0.0083	0.001	0.001
3-Methylnonane	I10	0.0050	0.0230	0.003	0.003
t-Butylbenzene	A10	0.0162	0.0703	0.008	0.008
i-Butylcyclohexane	N10	0.0025	0.0113	0.001	0.001
1t-Methyl-2-n-propylcyclohexane	I10	0.0010	0.0045	0.001	0.001
i-Butylbenzene	A10	0.0009	0.0039	0.000	0.000
sec-Butylbenzene	A10	0.0009	0.0039	0.000	0.000
UnknownC9s	U9	0.0133	0.0552	0.007	0.007
n-Decane	P10	0.0252	0.1159	0.015	0.015
1,2,3-Trimethylbenzene	A9	0.0022	0.0085	0.001	0.001
1,3-Methyl-i-propylbenzene	A10	0.0020	0.0087	0.001	0.001
1,4-Methyl-i-propylbenzene	A10	0.0023	0.0100	0.001	0.001
Sec-Butylcyclohexane	A10	0.0064	0.0290	0.004	0.004
1,2-Methyl-i-propylbenzene	A10	0.0031	0.0134	0.002	0.002
3-Ethylnonane	I10	0.0026	0.0131	0.001	0.001
1,3-Diethylbenzene	A10	0.0017	0.0074	0.001	0.001
1,3-Methyl-n-propylbenzene	A10	0.0052	0.0226	0.003	0.003
1,4-Diethylbenzene	A10	0.0029	0.0126	0.001	0.001
1,4-Methyl-n-propylbenzene	A10	0.0038	0.0165	0.002	0.002
n-Butylbenzene	A10	0.0021	0.0091	0.001	0.001
1,3-Dimethyl-5-ethylbenzene	A10	0.0042	0.0182	0.003	0.003
1,2-Diethylbenzene	A10	0.0017	0.0074	0.001	0.001
t-Decahydronaphthalene	A9	0.0009	0.0045	0.001	0.001
1,2-Methyl-n-propylbenzene	A10	0.0027	0.0117	0.002	0.002
1,3-Dimethyl-4-ethylbenzene	A10	0.0044	0.0191	0.003	0.003
1,2-Dimethyl-4-ethylbenzene	A10	0.0020	0.0087	0.001	0.001

1,3-Dimethyl-2-ethylbenzene	A10	0.0043	0.0187	0.002	0.002
1,2-Dimethyl-3-ethylbenzene	A10	0.0012	0.0052	0.001	0.001
1,2-Ethyl-i-propylbenzene	A10	0.0017	0.0081	0.001	0.001
1,4-Methyl-t-butylbenzene	A11	0.0026	0.0124	0.002	0.002
UnknownC10s	U10	0.0253	0.1164	0.015	0.015
n-Undecane	P11	0.0299	0.1511	0.020	0.020
1,4-Ethyl-i-propylbenzene	A11	0.0046	0.0220	0.003	0.003
1,2,4,5-Tetramethylbenzene	A11	0.0022	0.0095	0.001	0.001
1,2-Methyl-n-butylbenzene	A11	0.0030	0.0144	0.002	0.002
1,2,3,5-Tetramethylbenzene	A11	0.0031	0.0134	0.002	0.002
1,2-Methyl-t-butylbenzene	A11	0.0020	0.0096	0.001	0.001
5-Methylindan	A11	0.0021	0.0090	0.001	0.001
4-Methylindan	A11	0.0024	0.0102	0.002	0.002
1,2-Ethyl-n-propylbenzene	A11	0.0057	0.0273	0.004	0.004
1,3-Methyl-n-butylbenzene	A11	0.0012	0.0058	0.001	0.001
1,3-Di-i-propylbenzene	A11	0.0043	0.0226	0.003	0.003
sec-Pentylbenzene	A11	0.0035	0.0168	0.002	0.002
n-Pentylbenzene	A11	0.0033	0.0158	0.002	0.002
1,2-Di-n-propylbenzene	A11	0.0072	0.0378	0.005	0.005
Tetrahydronaphthalene	A10	0.0035	0.0150	0.003	0.003
Naphthalene	A10	0.0030	0.0124	0.002	0.002
1-t-Butyl-3,5-dimethylbenzene	A12	0.0043	0.0226	0.003	0.003
1,4-Ethyl-t-butylbenzene	A11	0.0028	0.0147	0.002	0.002
1,3-Di-n-propylbenzene	A12	0.0049	0.0257	0.004	0.004
UnknownC11s	U11	0.0327	0.1653	0.022	0.022
n-Dodecane	P12	0.0404	0.2225	0.029	0.029
1,3,5-Triethylbenzene	A12	0.0137	0.0719	0.008	0.008
1,2,4-Triethylbenzene	A12	0.0051	0.0268	0.003	0.003
1,4-Methyl-n-pentylbenzene	A12	0.0151	0.0792	0.011	0.011
n-Hexylbenzene	A12	0.0062	0.0325	0.004	0.004
1,2,3,4,5-Pentamethylbenzene	A13	0.0104	0.0499	0.008	0.008
2-Methylnaphthalene	A11	0.0124	0.0570	0.010	0.010
1-Methylnaphthalene	A11	0.0018	0.0083	0.001	0.001
UnknownC12s	U12	0.0563	0.2846	0.037	0.037
n-Tridecane	P13	0.0319	0.1902	0.024	0.024
UnknownC13s	U13	0.0675	0.4024	0.052	0.052
n-Tetradecane	P14	0.0194	0.1245	0.016	0.016
UnknownC14s	U14	0.0293	0.1880	0.024	0.024
n-Pentadecane	P15	0.0073	0.0502	0.006	0.006
UnknownC15s	U15	0.0488	0.3352	0.042	0.042
n-Hexadecane	P16	0.0036	0.0264	0.003	0.003
UnknownC16s	U16	0.0124	0.0908	0.011	0.011
UnknownC17s	U17	0.0047	0.0365	0.004	0.004
UnknownC18s	U18	0.0013	0.0107	0.001	0.001
<u>TOTAL</u>		<u>100.00000</u>	<u>100.00000</u>	<u>1.4820</u>	<u>1.4883</u>

BTEX COMPONENTS	MOLE%	WT%
BENZENE	0.0251	0.0634
TOLUENE	0.1094	0.3260
ETHYLBENZENE	0.0113	0.0388
XYLENES	0.0887	0.3045
TOTAL BTEX	0.2345	0.7327

*(DETAILED HYDROCARBON ANALYSIS/NJ 1993)
Mod ASTM D6730, GPA 2261 & GPA 2286.

** (CALC: GPA 2172, GPA 2145 & TP-17 @14.696 & 60 F)

CALCULATED VALUES**

BTU @	14.65	14.73
LHV NET DRY REAL :	166.6 /scf	167.5 /scf
NET WET REAL :	163.7 /scf	164.6 /scf
HHV GROSS DRY REAL :	179.2 /scf	180.2 /scf
GROSS WET REAL :	176.1 /scf	177.1 /scf
NET HEATING VALUE (60 °F ideal reaction):		2020.1 Btu/lbm
GROSS HEATING VALUE (60°F ideal reaction):		2178.9 Btu/lbm
RELATIVE DENSITY (AIR=1):		1.0666
DENSITY		0.08149 lb/scf
COMPRESSIBILITY FACTOR :		0.9994
REGULAR WOBBE INDEX		174.0

C6+ Fraction of DHA Gas Analysis @60°F, 14.696 psia

Net Dry Ideal BTU	6685.8 /scf	Relative Density - SG (Air=1)	4.6097	C6+ factors
Gross Dry Ideal BTU	7192.4 /scf	Z Compressibility Factor	0.99876	0.99795
Net Dry Ideal BTU	18661.9 /lb	Density Factor	351.748 lbm/1000 ft3	
Gross Dry Ideal BTU	20074.5 /lb	Molar Mass or MW	133.484 g/mol	
		Volume Liquid Ideal gas	0.821 scf/gal	18.1

**This hexanes plus fraction may be applied in place of published C6+ factors. The Z & GPM need additional calc for C6+ factors.
#DIV/0 or 0 (zero) will appear in this section when there is no hexanes plus in the sample to calculate C6+ factors.**

The data presented herein has been acquired by means of current analytical techniques and represents the judicious conclusion EMPACT Analytical Systems, Inc. Results of the analysis can be affected by the sampling conditions, therefore, are only warranted through proper lab protocol. EMPACT assumes no responsibility for interpretation or any consequences from application of the reported information and is the sole liability of the user. The reproduction in any media of this reported information may not be made, in portion or as a whole, without the written permission of EMPACT Analytical Systems, Inc.