



303-637-0150

EXTENDED NATURAL GAS ANALYSIS (*DHA)

MAIN PAGE

PROJECT NO. :	201502135	ANALYSIS NO. :	02
COMPANY NAME :	KERR MCGEE OIL & GAS ONSHORE LP	ANALYSIS DATE:	MARCH 1, 2015
ACCOUNT NO. :	P.O. #17503700	SAMPLE DATE :	FEBRUARY 24, 2015
PRODUCER :		CYLINDER NO. :	0652
LEASE NO. :		SAMPLED BY :	ZAC TUTHILL
NAME/DESCRIP :	SP_05_013_06465_PC 12:09		
	NENW_23_1N_69W		
FIELD DATA		SAMPLE TEMP. :	
SAMPLE PRES. :		AMBIENT TEMP.:	
VAPOR PRES. :		GRAVITY :	
COMMENTS :	SPOT; PRE: 556 PSI; POST: 556 PSI		
	GWA_PRODUCTION_WELL_SAMPLING/BWSE		

COMPONENT	MOLE %	MASS %	GPM @ 14.650	GPM @ 14.730
HELIUM	0.01	0.00	---	---
HYDROGEN	0.00	0.00	---	---
OXYGEN/ARGON	0.01	0.01	---	---
NITROGEN	0.33	0.43	---	---
CARBON DIOXIDE	1.91	3.92	---	---
METHANE	76.00230	56.89570	---	---
ETHANE	12.7709	17.9193	3.4087	3.4273
PROPANE	5.8436	12.0242	1.6068	1.6156
I-BUTANE	0.8407	2.2801	0.2741	0.2756
N-BUTANE	1.7908	4.8570	0.5633	0.5664
I-PENTANE	0.2735	0.9199	0.0990	0.0996
N-PENTANE	0.2099	0.7067	0.0760	0.0765
HEXANES PLUS	0.0083	0.0371	0.0010	0.0010
TOTALS	100.00000	100.00000	6.0289	6.0620

BTEX COMPONENTS	MOLE%	WT%	BTU @	14.650	14.730
BENZENE	0.0005	0.0018	LOW NET DRY REAL :	1131.0 /scf	1137.1 /scf
TOLUENE	0.0001	0.0004	NET WET REAL :	1111.2 /scf	1117.4 /scf
ETHYLBENZENE	0.0000	0.0000	HIGH GROSS DRY REAL :	1246.3 /scf	1253.1 /scf
XYLENES	0.0001	0.0005	GROSS WET REAL :	1224.5 /scf	1231.3 /scf
TOTAL BTEX	0.0007	0.0027	NET DRY REAL :	20030.3 /lb	20139.7 /lb
			GROSS DRY REAL :	22078.6 /lb	22199.1 /lb

RELATIVE DENSITY (AIR=1): 0.7398
 COMPRESSIBILITY FACTOR : 0.99637

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

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

THIS DATA HAS BEEN ACQUIRED THROUGH APPLICATION OF CURRENT STATE-OF-THE-ART ANALYTICAL TECHNIQUES.
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GLYCALC INFORMATION

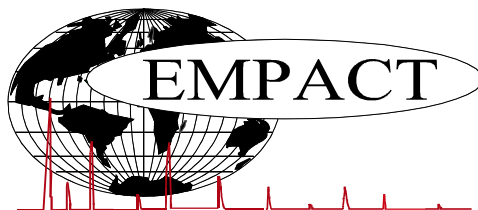
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FIELD DATA

SAMPLE PRES. :		SAMPLE TEMP. :	
VAPOR PRES. :		AMBIENT TEMP.:	
COMMENTS :	SPOT; PRE: 556 PSI; POST: 556 PSI	GRAVITY :	
	GWA_PRODUCTION_WELL_SAMPLING/BWSE		

Componet	Mole %	Wt %
Helium	0.01	0.00
Hydrogen	0.00	0.00
Carbon Dioxide	1.91	3.92
Nitrogen	0.33	0.43
Methane	76.00230	56.89570
Ethane	12.7709	17.9193
Propane	5.8436	12.0242
Isobutane	0.8407	2.2801
n-Butane	1.7908	4.8570
Isopentane	0.2649	0.8918
n-Pentane	0.2099	0.7067
Cyclopentane	0.0086	0.0281
n-Hexane	0.0005	0.0020
Cyclohexane	0.0001	0.0004
Other Hexanes	0.0047	0.0189
Heptanes	0.0001	0.0005
Methycyclohexane	0.0001	0.0005
2,2,4 Trimethylpentane	0.0000	0.0000
Benzene	0.0005	0.0018
Toluene	0.0001	0.0004
Ethylbenzene	0.0000	0.0000
Xylenes	0.0001	0.0005
C8+ Heavies	0.0021	0.0121
Subtotal	99.99000	99.99000
Oxygen/Argon	0.01	0.01
Total	100.00000	100.00000

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EXTENDED NATURAL GAS ANALYSIS (*DHA)
DHA COMPONENT LIST

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VAPOR PRES. :		AMBIENT TEMP.:	
COMMENTS :	SPOT; PRE: 556 PSI; POST: 556 PSI	GRAVITY :	
	GWA_PRODUCTION_WELL_SAMPLING/BWSE		

COMPONENT	PIANO #	MOLE %	MASS %	GPM @ 14.650	GPM @ 14.730
Helium	---	0.01	0.00	---	---
Hydrogen	---	0.00	0.00	---	---
Oxygen/Argon	---	0.01	0.01	---	---
Nitrogen	---	0.33	0.43	---	---
Carbon Dioxide	---	1.91	3.92	---	---
Methane	P1	76.00230	56.89570	---	---
Ethane	P2	12.7709	17.9193	3.409	3.427
Propane	P3	5.8436	12.0242	1.607	1.616
i-Butane	I4	0.8407	2.2801	0.274	0.276
n-Butane	P4	1.7908	4.8570	0.563	0.566
2,2-Dimethylpropane	I5	0.0038	0.0128	0.001	0.001
i-Pentane	I5	0.2611	0.8790	0.095	0.096
n-Pentane	P5	0.2099	0.7067	0.076	0.077
2,2-Dimethylbutane	I6	0.0007	0.0028	0.000	0.000
Cyclopentane	N5	0.0086	0.0281	0.003	0.003
2,3-Dimethylbutane	I6	0.0006	0.0024	0.000	0.000
2-Methylpentane	I6	0.0024	0.0097	0.001	0.001
3-Methylpentane	I6	0.0007	0.0028	0.000	0.000
n-Hexane	P6	0.0005	0.0020	0.000	0.000
Methylcyclopentane	N6	0.0003	0.0012	0.000	0.000
Benzene	A6	0.0005	0.0018	0.000	0.000
Cyclohexane	N6	0.0001	0.0004	0.000	0.000
n-Heptane	P7	0.0001	0.0005	0.000	0.000
Methylcyclohexane	N7	0.0001	0.0005	0.000	0.000
Toluene	A7	0.0001	0.0004	0.000	0.000
2-Methylheptane	I8	0.0001	0.0005	0.000	0.000
3-Methylheptane	I8	0.0001	0.0005	0.000	0.000
1c,2t,3-Trimethylcyclopentane	N8	0.0001	0.0005	0.000	0.000
n-Octane	P8	0.0003	0.0016	0.000	0.000
1,1,4-Trimethylcyclohexane	N9	0.0001	0.0006	0.000	0.000
2,2,3-Trimethylhexane	I9	0.0001	0.0006	0.000	0.000
Ethylcyclohexane	N8	0.0002	0.0010	0.000	0.000
1,3-Dimethylbenzene (m-Xylene)	A8	0.0001	0.0005	0.000	0.000
4-Methyloctane	I9	0.0001	0.0006	0.000	0.000
2-Methyloctane	I9	0.0001	0.0006	0.000	0.000
3-Methyloctane	I9	0.0001	0.0006	0.000	0.000
n-Nonane	P9	0.0003	0.0018	0.000	0.000
n-Butylcyclopentane	N9	0.0001	0.0006	0.000	0.000
n-Propylbenzene	A9	0.0001	0.0006	0.000	0.000
UnknownC9s	U9	0.0001	0.0006	0.000	0.000
n-Decane	P10	0.0001	0.0007	0.000	0.000

UnknownC10s		U10	0.0001	0.0007	0.000	0.000
TOTAL			100.00000	100.00000	6.0289	6.0620
BTEX COMPONENTS	MOLE%	WT%	BTU @		14.650	14.730
BENZENE	0.0005	0.0018	LOW	NET DRY REAL :	1131.0 /scf	1137.1 /scf
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