



NIGERIAN NATIONAL PETROLEUM CORPORATION
RESEARCH AND DEVELOPMENT DIVISION



Composition of Flash gasses from Yokri wellhead samples

Component	117L	127T
N2	1.23	1.39
CO2	0.76	1.28
C1	93.96	95.76
C2	3.70	1.37
C3	0.21	0.09
iC4	0.08	0.02
nC4	0.03	0.03
iC5	0.01	0.02
nC5	0.01	0.03
C6	0.01	0.01
C7	0.00	0.00
C8	0.00	0.00
C9	0.00	0.00
C10	0.00	0.00
TOTAL	100	100
 Mol Wt	 17.0452	 16.8409
Gravity	0.5882	0.5811
Mol Wt C7+	0.0000	0.0000
Mol% C7+	0.00	0.00
GHCont (Btu)	1026.9624	1000.0832
Wobbe Index	1339.1100	1311.9287
H2S	<0.2ppm	<0.2ppm

Date of sampling: 31/01/2019-01/02/2019

Date sample received: 06/02/2019

Sample Identity: Yokri Field Wellhead Sampling Campaign

Date of Report: 02/05/2019

SAMPLE ANALYSIS RESULT SHEET

S/N	PARAMETERS	METHOD	UNIT	117L	127T
1	pH	ASTM D1293	-	7.9	7.8
2	Temperature	APHA 2550 B	°C	38.5	41.0
3	Conductivity	ASTM D1125 A	mS/cm	42.0	40.9
4	Total Dissolved Solids	APHA 2540 C	mg/l	19,670	18,300
5	Alkalinity	ASTM D3875	mg/l	794	977
6	Bicarbonate (HCO_3^-)	ASTM D3875	mg/l	794	977
7	Chloride (Cl^-)	ASTM D512 C	mg/l	11,908	11,566
8	Sulphate (SO_4^{2-})	ASTM D516	mg/l	23	11
9	Dissolved O ₂	APHA 4500-O G	mg/l	0.41	0.54
10	Dissolved CO ₂	APHA 4500-CO ₂ C	mg/l	872	1,055
11	Dissolve H ₂ S	APHA 4500-S ²⁻ D	mg/l	1.47	0.88
12	Organic Acids	APHA 5560-B	mg/l	Pending	Pending
13	Iron	ASTM D1068	mg/l	0.24	0.23
14	Calcium	ASTM D511	mg/l	2.3	2.1

CRUDE OIL ANALYSIS RESULTS FOR YOKRI WELLS

S/N	PARAMETERS	METHOD	UNIT	117L	127T
1	Water Cut	ASTM D4006	Vol%	70.96	67.86
2	Sand Cut	PCMS-P010-13	PIB	6.10	10.59
3	Cloud Point	ASTM D2500	°C	Opaque	Opaque
4	Pour Point	ASTM D5853	°C	< -35	< -35