



Well Name: Ulibarri GC 003
API# 30 - 045-08890
Casing Sampled: Bradenhead
Sample Type Gas
(505) 325-6622

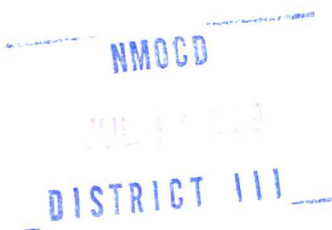
Analysis No: SO190011
Cust No: 15950-10250

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: ULIBARRI GC 003 BHD
County/State: SAN JUAN NM
Location: UNIT N SEC 35 TNSH 30 RNG 9
Field:
Formation: DK
Cust. Stn. No.: 3004508890

Source: BRADENHEAD
Well Flowing: N
Pressure: 239.6 PSIA
Flow Temp: DEG. F
Ambient Temp: 32 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 01/23/2019
Sample Time: 2.05 PM
Sampled By: EUGENIA HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:



Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	51.5077	0.5893	5.6710	0.00	0.4982
CO2	0.7167	0.0082	0.1220	0.00	0.0109
Methane	47.3385	0.5416	8.0310	478.12	0.2622
Ethane	0.2098	0.0024	0.0560	3.71	0.0022
Propane	0.0000	0.0000	0.0000	0.00	0.0000
Iso-Butane	0.0000	0.0000	0.0000	0.00	0.0000
N-Butane	0.0000	0.0000	0.0000	0.00	0.0000
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.2273	0.0026	0.1010	11.98	0.0075
Total	100.0000	1.1441	13.9810	493.81	0.7810

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.001
BTU/CU.FT IDEAL: 495.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 495.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 486.9
DRY BTU @ 15.025: 505.4
REAL SPECIFIC GRAVITY: 0.7815

CYLINDER #: 7087
CYLINDER PRESSURE: 191 PSIG
ANALYSIS DATE: 02/05/2019
ANALYSIS TIME: 01:55:52 PM
ANALYSIS RUN BY: CAMERON MANGAN

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 02/14/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: ULIBARRI GC 003 BHD
Stn. No.:
Mtr. No.: 3004508890

BRADENHEAD
DK

02/14/2019
15950-10250

Smpl Date:	01/23/2019	07/18/2017
Test Date:	02/05/2019	07/18/2017
Run No:	SO190011	SO170052
Nitrogen:	51.5077	97.6895
CO2:	0.7167	0.9883
Methane:	47.3385	0.0981
Ethane:	0.2098	0.0586
Propane:	0.0000	0.0191
I-Butane:	0.0000	0.0204
N-Butane:	0.0000	0.0436
I-Pentane:	0.0000	0.0341
N-Pentane:	0.0000	0.0000
Hexane+:	0.2273	1.0483
BTU:	495.5	61.4
GPM:	13.9810	11.4580
SPG:	0.7815	0.9982



Well Name: Ulibarri GC 003
API# 30-045-08890
Casing Sampled: Intermediate
Sample Type Gas
(505) 325-6622

Analysis No: SO190013
Cust No: 15950-11470

Well/Lease Information

Customer Name:	BP - SOUTH BHD PROJECT	Source:	INTERMEDIATE
Well Name:	ULIBARRI GC #003; INT	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	1.1 PSIA
Location:		Flow Temp:	DEG. F
Field:		Ambient Temp:	32 DEG. F
Formation:	DK	Flow Rate:	MCF/D
Cust. Stn. No.:	API 3004508890	Sample Method:	Purge & Fill
		Sample Date:	01/23/2019
		Sample Time:	2.17 PM
		Sampled By:	EUGENIA HAMILTON
		Sampled by (CO):	PESCO
Heat Trace:	N		
Remarks:	PRESSURED WITH HELIUM TO 30LBS.		

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.1367	0.7126	0.3460	0.00	0.0303
CO2	0.0313	0.0071	0.0050	0.00	0.0005
Methane	87.8225	19.9517	14.9260	887.01	0.4864
Ethane	4.2772	0.9717	1.1470	75.69	0.0444
Propane	2.2339	0.5075	0.6170	56.21	0.0340
Iso-Butane	0.4609	0.1047	0.1510	14.99	0.0092
N-Butane	0.5916	0.1344	0.1870	19.30	0.0119
I-Pentane	0.2738	0.0622	0.1000	10.95	0.0068
N-Pentane	0.2086	0.0474	0.0760	8.36	0.0052
Hexane Plus	0.9635	0.2189	0.4310	50.79	0.0319
Total	100.0000	22.7182	17.9860	1123.30	0.6607

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0028	CYLINDER #:	4932
BTU/CU.FT IDEAL:	1125.9	CYLINDER PRESSURE:	PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1129.1	ANALYSIS DATE:	02/05/2019
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1109.5	ANALYSIS TIME:	01:27:17 AM
DRY BTU @ 15.025:	1151.7	ANALYSIS RUN BY:	SHYANN ELLEDGE
REAL SPECIFIC GRAVITY:	0.6623		

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 02/14/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: ULIBARRI GC #003; INT
Stn. No.: API 3004508890
Mtr. No.:

INTERMEDIATE
DK

02/14/2019
15950-11470

Smpl Date: 01/23/2019
Test Date: 02/05/2019
Run No: SO190013

Nitrogen: 3.1367
CO2: 0.0313
Methane: 87.8225
Ethane: 4.2772
Propane: 2.2339
I-Butane: 0.4609
N-Butane: 0.5916
I-Pentane: 0.2738
N-Pentane: 0.2086
Hexane+: 0.9635

BTU: 1129.1
GPM: 17.9860
SPG: 0.6623



Well Name: ULIBARRI GC 3
 API# 30-045-08890
 Casing Sampled: Production
 Sample Type: GAS
 (505) 325-6622

Analysis No: SO190012
 Cust No: 15950-10255

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
 Well Name: ULIBARRI GC 003 CSG
 County/State: SAN JUAN NM
 Location: UNIT N SEC 35 TNSH 30 RNG 9
 Field:
 Formation: DK
 Cust. Stn. No.: 3004508890

Source: CASING
 Well Flowing: N
 Pressure: 143.7 PSIA
 Flow Temp: DEG. F
 Ambient Temp: 32 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 01/23/2019
 Sample Time: 2:53 PM
 Sampled By: EUGENIA HAMILTON
 Sampled by (CO): PESCO

Heat Trace: N
 Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1643	0.1616	0.0180	0.00	0.0016
CO2	1.9134	1.8817	0.3270	0.00	0.0291
Methane	92.3377	90.8061	15.6890	932.61	0.5115
Ethane	3.4278	3.3709	0.9190	60.66	0.0356
Propane	0.9170	0.9018	0.2530	23.07	0.0140
Iso-Butane	0.2812	0.2765	0.0920	9.14	0.0056
N-Butane	0.2457	0.2416	0.0780	8.02	0.0049
I-Pentane	0.1612	0.1585	0.0590	6.45	0.0040
N-Pentane	0.0969	0.0953	0.0350	3.88	0.0024
Hexane Plus	0.4548	0.4473	0.2030	23.97	0.0151
Total	100.0000	98.3413	17.6730	1067.81	0.6237

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
 BTU/CU.FT IDEAL: 1070.3
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1073.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1054.3
 DRY BTU @ 15.025: 1094.5
 REAL SPECIFIC GRAVITY: 0.625

CYLINDER #: 7061
 CYLINDER PRESSURE: 147 PSIG
 ANALYSIS DATE: 02/05/2019
 ANALYSIS TIME: 11:35:54 AM
 ANALYSIS RUN BY: SHYANN ELLEDGE

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 02/14/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: ULIBARRI GC 003 CSG
Stn. No.:
Mtr. No.: 3004508890

CASING
DK

02/14/2019
15950-10255

Smpl Date:	01/23/2019	07/18/2017
Test Date:	02/05/2019	07/18/2017
Run No:	SO190012	SO170053
Nitrogen:	0.1643	52.2637
CO2:	1.9134	0.8629
Methane:	92.3377	44.6631
Ethane:	3.4278	1.5654
Propane:	0.9170	0.2096
I-Butane:	0.2812	0.0297
N-Butane:	0.2457	0.0409
I-Pentane:	0.1612	0.0000
N-Pentane:	0.0969	0.0000
Hexane+:	0.4548	0.3647
BTU:	1073.0	507.3
GPM:	17.6730	14.1430
SPG:	0.6250	0.7995



Well Name: Ulibarri GC 3
 API# 30-045-08890
 Casing Sampled: Tubing
 Sample Type Gas
 (505) 325-6622

Analysis No: SO190014
 Cust No: 15950-10260

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
 Well Name: ULIBARRI GC 003 TBG
 County/State: SAN JUAN NM
 Location: UNIT N SEC 35 TNSH 30 RNG 9
 Field:
 Formation: DK
 Cust. Stn. No.: 3004508890

Source: TUBING
 Well Flowing: N
 Pressure: 142.4 PSIA
 Flow Temp: DEG. F
 Ambient Temp: 32 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 01/23/2019
 Sample Time: 2.39 PM
 Sampled By: EUGENIA HAMILTON
 Sampled by (CO): PESCO

Heat Trace: N
 Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1627	0.1602	0.0180	0.00	0.0016
CO2	2.0512	2.0193	0.3510	0.00	0.0312
Methane	93.0551	91.6058	15.8100	939.86	0.5154
Ethane	3.1427	3.0938	0.8420	55.62	0.0326
Propane	0.7408	0.7293	0.2050	18.64	0.0113
Iso-Butane	0.2491	0.2452	0.0820	8.10	0.0050
N-Butane	0.1622	0.1597	0.0510	5.29	0.0033
I-Pentane	0.1159	0.1141	0.0420	4.64	0.0029
N-Pentane	0.0568	0.0559	0.0210	2.28	0.0014
Hexane Plus	0.2635	0.2594	0.1180	13.89	0.0087
Total	100.0000	98.4427	17.5400	1048.31	0.6134

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
 BTU/CU.FT IDEAL: 1050.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1053.3
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1035.0
 DRY BTU @ 15.025: 1074.4
 REAL SPECIFIC GRAVITY: 0.6146

CYLINDER #: 7590
 CYLINDER PRESSURE: 142 PSIG
 ANALYSIS DATE: 02/05/2019
 ANALYSIS TIME: 11:15:36 AM
 ANALYSIS RUN BY: SHYANN ELLEDGE

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 02/14/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: ULIBARRI GC 003 TBG
Stn. No.:
Mtr. No.: 3004508890

TUBING
DK

02/14/2019
15950-10260

Smpl Date:	01/23/2019	07/19/2017
Test Date:	02/05/2019	07/19/2017
Run No:	SO190014	SO170054
Nitrogen:	0.1627	0.1769
CO2:	2.0512	2.0799
Methane:	93.0551	92.5575
Ethane:	3.1427	3.2636
Propane:	0.7408	0.8021
I-Butane:	0.2491	0.2771
N-Butane:	0.1622	0.1893
I-Pentane:	0.1159	0.1403
N-Pentane:	0.0568	0.0626
Hexane+:	0.2635	0.4507
BTU:	1053.3	1064.9
GPM:	17.5400	17.6250
SPG:	0.6146	0.6227