



Well Name: SMYER COM LS 1A
 API# 30-045-23045
 Casing Sampled: Bradenhead
 Sample Type gas

Analysis No: SO190076
 Cust No: 15950-10145

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
 Well Name: SMYER COM LS 1A; BHD
 County/State: NM
 Location:
 Lease/PA/CA:
 Formation: MV
 Cust. Str. No.:
 API 3004523045



Source: BRADENHEAD
 Well Flowing: Y
 Pressure: 46 PSIA
 Flow Temp: DEG. F
 Ambient Temp: 78 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 06/14/2019
 Sample Time: 11.36 AM
 Sampled By: E. HAMILTON
 Sampled by (CO): PESCO

Heat Trace: N
 Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.1642	2.1367	0.2390	0.00	0.0209
CO2	0.0158	0.0156	0.0030	0.00	0.0002
Methane	87.4975	86.3849	14.8700	883.72	0.4846
Ethane	5.8583	5.7838	1.5710	103.67	0.0608
Propane	2.5215	2.4894	0.6960	63.44	0.0384
Iso-Butane	0.5515	0.5445	0.1810	17.93	0.0111
N-Butane	0.6197	0.6118	0.1960	20.22	0.0124
I-Pentane	0.2312	0.2283	0.0850	9.25	0.0058
N-Pentane	0.1404	0.1386	0.0510	5.63	0.0035
Hexane Plus	0.3999	0.3948	0.1790	21.08	0.0132
Total	100.0000	98.7284	18.0710	1124.95	0.6510

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
 BTU/CU.FT IDEAL: 1127.6
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1130.6
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1110.9
 DRY BTU @ 15.025: 1153.2
 REAL SPECIFIC GRAVITY: 0.6525

CYLINDER #: 7985
 CYLINDER PRESSURE: 44 PSIG
 ANALYSIS DATE: 06/25/2019
 ANALYSIS TIME: 03:07:25 PM
 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: 06/28/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: SMYER COM LS 1A; BHD
Stn. No.:
Mtr. No.: API 3004523045

BRADENHEAD
MV

06/28/2019
15950-10145

Smpl Date:	06/14/2019	06/21/2017
Test Date:	06/25/2019	06/21/2017
Run No:	SO190076	SO170037
Nitrogen:	2.1642	2.4982
CO2:	0.0158	0.0211
Methane:	87.4975	87.6258
Ethane:	5.8583	5.7550
Propane:	2.5215	2.3714
I-Butane:	0.5515	0.5101
N-Butane:	0.6197	0.5946
I-Pentane:	0.2312	0.2224
N-Pentane:	0.1404	0.1288
Hexane+:	0.3999	0.2727
BTU:	1130.6	1116.5
GPM:	18.0710	17.9760
SPG:	0.6525	0.6471



Well Name: Smyers Com LS 1A
 API# 30 - 045 23045
 Casing Sampled: Casing
 Sample Type: Gas

Analysis No: SO190077
 Cust No: 15950-10140

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
 Well Name: SMYERS COM LS 1A; CSG
 County/State: NM
 Location:
 Lease/PA/CA:
 Formation: MV
 Cust. Stn. No.:
 API 3004523045

Source: CASING
 Well Flowing: Y
 Pressure: 47 PSIA
 Flow Temp: DEG. F
 Ambient Temp: 78 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 06/14/2019
 Sample Time: 11.41 AM
 Sampled By: E. HAMILTON
 Sampled by (CO): PESCO

Heat Trace: N
 Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2081	0.2063	0.0230	0.00	0.0020
CO2	1.0009	0.9922	0.1710	0.00	0.0152
Methane	77.3601	76.6877	13.1650	781.34	0.4285
Ethane	11.1051	11.0086	2.9810	196.53	0.1153
Propane	5.5186	5.4706	1.5260	138.85	0.0840
Iso-Butane	0.9120	0.9041	0.3000	29.66	0.0183
N-Butane	1.6424	1.6281	0.5200	53.58	0.0330
I-Pentane	0.5262	0.5216	0.1930	21.05	0.0131
N-Pentane	0.4398	0.4360	0.1600	17.63	0.0110
Hexane Plus	1.2868	1.2756	0.5760	67.83	0.0426
Total	100.0000	99.1308	19.6150	1306.47	0.7629

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0041
 BTU/CU.FT IDEAL: 1309.5
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1314.9
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1292.0
 DRY BTU @ 15.025: 1341.2
 REAL SPECIFIC GRAVITY: 0.7658

CYLINDER #: 7044
 CYLINDER PRESSURE: 51 PSIG
 ANALYSIS DATE: 06/26/2019
 ANALYSIS TIME: 10:17:40 AM
 ANALYSIS RUN BY: RICHARD WILSON

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

GPA Standard: GPA-2261

GC: Danalyzer Model 500

GC Method: C6+ Gas

Last Cal/Verify: 06/28/2019



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: SMYERS COM 1S 1A; CSG
Stn. No.:
Mtr. No.: API 3004523045

CASING
MV

06/28/2019
15950-10140

Smpl Date:	06/14/2019	06/21/2017
Test Date:	06/26/2019	06/21/2017
Run No:	SO190077	SO170038
Nitrogen:	0.2081	0.1736
CO2:	1.0009	0.9788
Methane:	77.3601	77.3359
Ethane:	11.1051	10.9779
Propane:	5.5186	5.4715
I-Butane:	0.9120	0.9319
N-Butane:	1.6424	1.6682
I-Pentane:	0.5262	0.5418
N-Pentane:	0.4398	0.4639
Hexane+:	1.2868	1.4567
BTU:	1314.9	1323.3
GPM:	19.6150	19.6630
SPG:	0.7658	0.7705



Well Name: SmYER Com LS 1A
 API# 30-245-23045
 Casing Sampled: Tubing
 Sample Type: Gas

Analysis No: SO190078
 Cust No: 15950-10175

Well/Lease Information

Customer Name:	BP - SOUTH BHD PROJECT	Source:	TUBING
Well Name:	SMYERS COM LS 1A; TBG	Well Flowing:	Y
County/State:	NM	Pressure:	30 PSIA
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	78 DEG. F
Formation:	MV	Flow Rate:	MCF/D
Cust. Stn. No.:		Sample Method:	Purge & Fill
	API 3004523045	Sample Date:	06/14/2019
		Sample Time:	11.39 AM
		Sampled By:	E. HAMILTON
		Sampled by (CO):	PESCO
Heat Trace:	N		
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2085	0.2052	0.0230	0.00	0.0020
CO2	1.8947	1.8647	0.3250	0.00	0.0288
Methane	79.0293	77.7768	13.4470	798.20	0.4377
Ethane	9.5977	9.4456	2.5760	169.85	0.0996
Propane	4.6864	4.6121	1.2960	117.91	0.0714
Iso-Butane	0.8904	0.8763	0.2920	28.95	0.0179
N-Butane	1.4482	1.4252	0.4580	47.24	0.0291
I-Pentane	0.5450	0.5364	0.2000	21.80	0.0136
N-Pentane	0.4169	0.4103	0.1520	16.71	0.0104
Hexane Plus	1.2829	1.2626	0.5740	67.62	0.0425
Total	100.0000	98.4152	19.3430	1268.30	0.7529

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0039	CYLINDER #:	7083
BTU/CU.FT IDEAL:	1271.2	CYLINDER PRESSURE:	29 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1276.2	ANALYSIS DATE:	06/26/2019
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1254.0	ANALYSIS TIME:	09:37:36 AM
DRY BTU @ 15.025:	1301.8	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.7555		

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: 06/28/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: SMYERS COM LS 1A; TBG
Stn. No.:
Mtr. No.: API 3004523045

TUBING
MV

06/28/2019
15950-10175

Smpl Date:	06/14/2019	06/21/2017
Test Date:	06/26/2019	06/21/2017
Run No:	SO190078	SO170039
Nitrogen:	0.2085	0.1508
CO2:	1.8947	1.8631
Methane:	79.0293	79.8255
Ethane:	9.5977	9.4523
Propane:	4.6864	4.5279
I-Butane:	0.8904	0.8726
N-Butane:	1.4482	1.4018
I-Pentane:	0.5450	0.5302
N-Pentane:	0.4169	0.4004
Hexane+:	1.2829	0.9755
BTU:	1276.2	1257.8
GPM:	19.3430	19.2120
SPG:	0.7555	0.7426